

City of Salinas

Stormwater Management Plan

(Urban Watershed Management Program)

Prepared in Compliance with California Regional Water Quality Control Board,
Central Coast Region

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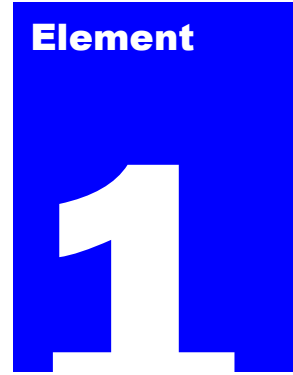
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Introduction



Make no little plans, they have no magic to stir men's blood and probably will themselves not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will not die.

— Daniel Burnham

1.1 Purpose

This plan describes the City of Salinas' (City) comprehensive approach to improving watershed conditions and water quality. The Stormwater Management Plan (SWMP), which includes existing and enhanced program control measures, represents the City's strategy for controlling the discharge of pollutants from the municipal storm drain system to the maximum extent practicable (MEP). The Plan seeks to link proposed management practices with identified watershed and water quality issues to reduce adverse impacts and enhance watershed health.

This Plan is arranged into ten elements and their organizational relationship to the eight required elements from the City's NPDES Municipal Permit (Municipal Permit) is provided below. In addition, within each element Municipal Permit requirements are summarized and cross-referenced to the section of the element where they are addressed.

Stormwater Management Plan

Municipal Permit

Element 1: Introduction

Element 2. Water Resources

Element 3: Municipal Maintenance

Element 4. Development Standards.

Element 5. Construction Site Management

Element 6. Public Education and Outreach

Element 7. Commercial and Industrial Facilities

Element 8. Illicit Discharge and Illegal Connection

Element 9. Monitoring and Water Quality Testing

Element 10. Budget and Legal Authority

Municipal Maintenance

Development Standards

Construction Site Management

Public Education and Participation

Commercial/Industrial Facilities

Illicit Discharge Detection and

Elimination

Attachment 5, D

Legal Authority /Program Effectiveness¹

¹ Program effectiveness is discussed relative to each proposed BMP and contained within Elements 3-8.

1.2 Approach

"The significant problems we face cannot be solved at the same level of thinking we were at when we created them."

— Albert Einstein

Several key events have influenced the City's approach to preparing this Plan. First, the City's Municipal Permit is substantially different from the one issued to the City in 1999. Second, the City has substantially grown. Third, there is generally a better understanding of issues, impacts, environment and appropriate management practices than during the initial permit term. Therefore, this Plan is a departure from past efforts in terms of approach and goals.

Municipal stormwater management has evolved over time from an urban flood control function, to a water and resource management function, and an environmental protection and regulatory function. All these functions now co-exist as City responsibilities. This evolution has forced changes in how stormwater systems are planned, designed, constructed, operated and financed. More specifically, the City's role in managing stormwater has evolved such that an effective integrated water resource management program now requires a substantial financial commitment.

The Plan is an implementation strategy to guide public activities and direct private sector actions for the years 2005 through 2009. It extends and builds upon the successful City programs began in 1999 when the State Regional Water Quality Control Board issued the City its first NPDES permit.

This Plan lays out Salinas' comprehensive, strategic and integrated approach to improving watershed health. By identifying objectives, strategies, and measurable Best Management Practices (BMP) goals, the City aims to protect the best remaining watershed resources, protect water quality, and improve conditions citywide.

This revised SWMP proposes a wide range of continuing and enhanced BMPs and control measures which will be implemented over the period covered by the Permit. These additional control measures will assist in improving the overall effectiveness of the stormwater program and better focus the specific activities. Where possible, control measures were developed to focus on specific pollutants of concern or sources to enhance pollution reduction and provide increased environmental benefit.

Moving Toward a Watershed Approach

Simply stated, a watershed can be defined as a geographic area that drains to a creek or river. Activities on the land affect not only what happens on upland areas but on waterways and adjacent riparian areas. That is, watersheds function as a single ecological unit; what happens in one area affects other areas. To ensure that water flowing in creeks and rivers is clean, the watershed itself must function in a healthy manner. Ecological processes and natural systems at work within the watershed must be healthy. Disruption to one aspect of the natural system, such as clear-cutting of vegetation, affects other functional areas, such as erosion, habitat, and drinking water quality. It is this broad context that permeates this Plan.

A healthy watershed fosters achievement of many of Salinas' goals and objectives,² such as supporting the community's economic vitality and conservation of its natural resources; enhancing the community's quality of life; and meeting citizen's health and safety needs. Further, fostering a healthy watershed enables the City to meet its obligations under the federal and state regulations, such as the Clean Water Act, Safe Drinking Water Act, Endangered Species Act and the Basin Management Plan.

A watershed plan is a comprehensive framework for applying management tools. It is an approach to integrate factors and positions that affect water quality with an emphasis on sustainable solutions produced through collaborative problem solving. Some of these factors include:

1. Identification and review of existing regulations and Salinas' planning and water quality management documents.
2. Literature review of other communities with advanced programs.
3. Identification of stormwater BMPs that have a proven success rate.
4. Review of new and upcoming BMP technologies and approaches.
5. Development of practical Low Impact Development design standards and guidelines.
6. Adoption of an adaptive management process to respond to changing circumstance.

Watersheds don't commonly follow corporate boundaries. Water that falls in one jurisdiction may flow through several more jurisdictions and numerous environmental ecosystems before it reaches its final destination. This is especially true in the Salinas area. Water that begins its journey in the relatively undisturbed Gabilan and Santa Lucia Mountains drains farmlands and other cities and developed areas before entering Salinas. Once in the City, water passes through municipal neighborhoods before re-entering farmlands, then flows on to more urban uses. Water flows out of Salinas to re-enter more farmland before draining ultimately to Monterey Bay. On its journey, water flows through several different land uses, some more than once, and often through several different jurisdictions.

Water flowing into the City is as much a concern for Salinas as water flowing downstream from the City. This is especially true for stakeholders furthest downstream who inherit the effects of the good, as well as the poor watershed management practices of their upstream neighbors. The interrelatedness of upstream and downstream stakeholders is the principal reason why this Plan's approach is watershed in nature. It is also the reason behind the Plan's collaborative approach to watershed management. Benefits of planning at a watershed scale are listed in Table 1.1.

While the Plan moves Salinas towards regional watershed planning, the City's formal responsibility under its NPDES permit is confined within its municipal boundaries. Indeed, the City has no authority outside of its boundaries.

² City of Salinas, 2002 General Plan

Stakeholders

Regional solutions can only be obtained when regional stakeholders collaborate and cooperate. Without cooperation, the regional approach will not succeed. Agency stakeholders include other entities that have influence, policy control, and regulatory authority. Among others, principal agency stakeholders include: City departments, the Regional Water Quality Control Board, County of Monterey Environmental Health Department, County of Monterey Water Resources Agency, Association of Monterey Bay Area Governments, Federal Natural Resources Conservation Service, National Oceanic Atmospheric Administration, Monterey Bay National Marine Sanctuary, agricultural agencies (including the Agricultural Waiver Program administered by the RWQCB), and the Watershed Institute of California State University, Monterey Bay. Other groups from the environmental, developmental, and business communities, the general public, round out key stakeholders.

Table 1.1 Benefits of Watershed Planning

<i>Local Government Benefits</i>	<i>Administrative Benefits</i>
<ul style="list-style-type: none"> • Enables analyses that are most meaningful at a watershed or subwatershed scale (e.g., nutrient loadings, impervious cover estimates, etc.) • Enables management at a scale necessary to ensure consistency with TMDLs • Provides a framework for prioritizing resources (staff, conservation dollars, etc.) • Provides educational opportunities for citizens to understand how natural resources management interacts with existing and future development • Gives citizens an active voice in protecting and restoring natural resources that are important to the community 	<ul style="list-style-type: none"> • Provides a structure for communities to target geographic areas for land conservation and development to maximize the efficiency of community planning efforts • Enables more efficient management of permitting programs • Focuses data collection and analysis for environmental assessments • Provides benchmarks for measuring the success of management efforts
<i>Environmental Benefits</i>	<i>Financial Benefits</i>
<ul style="list-style-type: none"> • Improves quality of water for drinking and recreational use • Enhances water supply • Protects wildlife habitat and improves natural resources • Controls flooding by restoring riparian and wetland areas 	<ul style="list-style-type: none"> • Avoids development in sensitive areas and can help minimize compliance and mitigation costs • Improves water supply protection to reduce the need for costly drinking water treatment • Provides a framework and rationale to pursue various funding opportunities • Prevention and planning is less costly than restoration
Source: Modified from CBP, 2004 TMDL: Total Maximum Daily Loads	

Source: Clean Water Program, State of Maryland, as modified from CBP, 2004

1.3 NPDES Permit Requirements and Permit Area

The City's Municipal Permit requirements are contained in Appendix B. Requirements are also listed by subject matter at the beginning of each element of this Plan.

Permit requirements apply to the area within the City of Salinas' municipal boundaries (Figure 1-1). Areas within City limits are shown by greater density urban street patterns. Creeks that drain northern and southeastern outlying areas and flow into Salinas are shown as blue (lightweight) lines. Future growth areas are shown as a shaded tone. Development plans for the Future Growth Areas are being designed consistent with the City's Municipal Permit requirements and the Salinas General Plan. Additionally, Low Impact Development (LID) strategies are being incorporated into the planning and development processes for these areas.

1.4 Principles and Policies

The Regional Water Quality Control Board's *Storm Water Management Program Revision Requirements* are contained within the City's Municipal Permit (NPDES NO CA 0049981 and Order R3-200400135). These have been termed "principles and policies" and included in this Plan by reference. In addition to these principles and policies, several municipal goals shape this Plan. The overall goals outlines in this introductory element are written broadly as they are intended to guide each of the elements that follow. Each of the elements, however, more specifically identifies and defines the criteria and measurable goals for meeting the City's Permit and reducing the degradation, by urban runoff, of the beneficial uses of natural resources. To meet these goals, the City must develop a cost-effective program, which focuses on pollution prevention of urban stormwater. It must also seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem and coordinate implementation of control measures with other agencies.

Goal 1: Ensure that water quality meets the need for all beneficial uses by reducing stormwater pollution to the maximum extent practicable.

Objectives: Fully Implement this Plan
 Establish a cost-effective program which focuses on pollution prevention of urban stormwater.
 Secure stakeholder participation and implement collaboratively.

Protection of water quality has been identified as an important goal in the *2002 Salinas General Plan*, and is addressed in several City documents, such as the *Storm Drain Master Plan*, *Storm Drain Ordinance* and the *Salinas Zoning Code*. Through its implementation and enforcement of these and other City policies and regulations, the City will ensure compliance with its Permit and work to meet this goal. Collaboration among and between regional stakeholders and the City is key to meeting this goal. Just as inextricable are the links between the various municipal disciplines and regional stakeholders.

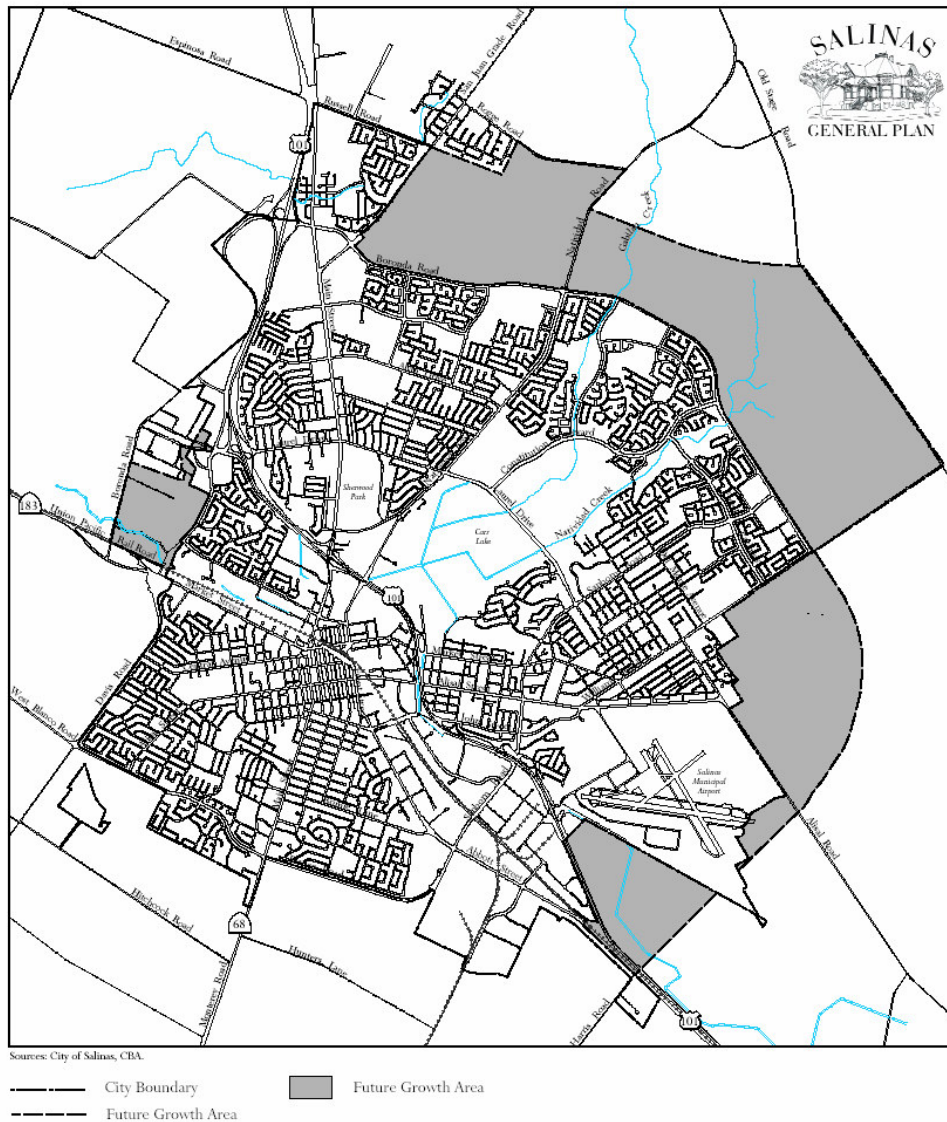
Goal 2: Meet the City of Salinas 2005 NPDES Permit: Comply with all federal, state, and local regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the City's storm drain system.

Objective: Fully implement this Plan.

Continue to use the progress reports, workplans and annual monitoring reports to communicate City program activities to stakeholders.

Requirements contained within the 2005 Municipal Permit are intended to decrease the adverse impacts of stormwater discharge from Salinas' municipal separate storm sewer system (MS4). The Permit identifies binding provisions and penalty clauses for failure to comply. Further, it requires Salinas to assertively address the problems caused by polluters and pollutants in its waterways. State stream standards help to determine

Figure 1.1 City of Salinas



whether receiving waters in Salinas meet designated beneficial uses, such as supply, recreation, and aquatic life. In the event that streams receiving stormwater discharges from Salinas fail to meet state standards, Salinas may be required to take additional steps to address adverse impacts. To meet these goals, the SWMP provides for a comprehensive and multidisciplinary effort by the City.

1.5 Overview of Regulatory Requirements

The need to protect the water quality and the environment has resulted in a number of laws, regulations and policies. The principal regulations affecting the City of Salinas are the Federal Clean Water Act and the State of California Porter-Cologne Act.

In response to the nation's concerns about the condition of the nation's waterways, Congress amended the Federal Water Pollution Control Act. The intent of this legislation was to restore the nation's waterways to "fishable and swimmable" conditions. The 1972 Clean Water Act (CWA) prohibits discharges of pollutants into waters of the United States from any point source, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. As a first priority, the CWA requires controls for point sources such as wastewater outfalls. In addition, it also authorizes studies to determine impacts from other pollutant sources, such as urban and agricultural runoff.

In 1987, Congress added Section 402 to the Clean Water Act. These amendments established a framework for regulating municipal, industrial and construction stormwater discharges under the requirements of the NPDES program. Further, on November 16, 1990, the U.S. Environmental Protection Agency (EPA) published regulations³ establishing application requirements for municipalities with a population of over 100,000 to obtain an NPDES stormwater permit for discharges from municipal separate storm drain systems.

Section 402(p) of the Clean Water Act requires municipalities to prohibit non-stormwater discharges to municipal storm drain systems, and to reduce the discharge of pollutants from their storm drain system to the *maximum extent practicable (MEP)* using "management practices, control techniques and system, design and engineering methods, and such other provisions...appropriate for the control of such pollutants."

The California State Water Resources Control Board (SWRCB) through its nine Regional Water Quality Control Boards (RWQCB) administers the NPDES stormwater management program in California. The City lies within the Central Coast Regional Water Quality Control Board (Region 3). Salinas, with a population of over 100,000 people, is considered a Phase I community.

In addition to the City preparing this comprehensive management Plan, other operators within the City also have permit requirements. For industrial facilities and construction activities, the SWRCB has issued a statewide general permit that applies to all stormwater discharges requiring an NPDES permit. These operators must submit a Stormwater Pollution Prevention Plan.

³ November 16, 1990, U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Permit Application Regulations for Stormwater Discharges; Final Rule 40 CFR par 122.26

1.6 NPDES Permit Requirements

On February 11, 2005, the State Water Resources Control Board adopted Waste Discharge Requirements (Permit) Order No. R3-2004-0135. Issuance of this Permit superceded the City's initial permit issued in 1999. This permit will be in effect until 2009. Through Attachment 4 to the Municipal Permit, the RWQCB gave specific guidance as to what topics must be addressed in the City's Storm Water Management Plan (SWMP). A copy of the Permit is attached as Appendix A-1.⁴

1.7 Changes Affecting Program Management

New requirements affecting the City's SWMP are one of several significant changes from the 1999 Order/Permit. The 2005 Permit includes a requirement that the City implement best management practices (BMPs) to the maximum extent practicable (MEP). Program development and implementation of BMPs to the maximum extent practicable raises the standard over past requirements and necessitates that the City undertake a more ambitious effort.

Another significant change contained within the 2005 Permit has to do with the City's Monitoring and Reporting Program (MRP). The City is required to prepare a Quality Assurance Program Plan (QAPP) as part of its MRP. During the City's first permit term, 21 sites were monitored. Results from these monitoring locations have been factored-in to the revised reporting and monitoring program. In sum, language contained within the 2005 Order reflects analysis of the past five-years of water sampling, changes in the Federal Storm Water Program, precedential orders issued by the State Water Resources Control Board, case law, and lessons learned from implementation of the initial permit.

Since 1999, the City has experienced other significant changes. The City has grown 17.6%, from a population of 129,8005 to over 152,677 in 2005. Much of this growth has occurred in the northern portion of the City on what formerly was agricultural land. That pace of growth is indicative of longer-term trends. Over the past 30-years, the population of the City has more than doubled. In 1970, the City's population was 58,896. By the year 2000, it grew to 143,776; this is a 3% growth rate⁶. The City's population is projected to continue to grow at a similar pace over the new permit term and into the next twenty to thirty-years.⁷ For example, in the next five years, the City projects that 385-acres of farmland to the North and East of the City will be converted to residential use, and City boundaries will be expanded. Conversion of this land is projected to add an additional 44,000 residents⁸, or almost 30-percent over existing levels. When the RWQCB issued the City its NPDES permit, it expressed particular interest and concern over the potential for adverse impacts of planned growth if it was not managed well. To

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⁴ Permit is also available on-line at: <http://www.ci.salinas.ca.us/PubWrks/MtcSvc/StormWater-NPDES/StormWaterRegulations.html>.

⁵ State Department of Finance

⁶ City of Salinas 2002 General Plan

⁷ Ibid.

⁸ Based upon 12,000 dwelling units and the 2000 US Census Salinas Household Size of 3.66 people per dwelling unit.

address this concern, the City has made a concerted effort to incorporate LID techniques and strategies into the planning and development process for this area.

While the City's population has grown over the past 5-years, the City's financial assets have shrunk. Since April 2003, the City's General Fund budget has been reduced 24%, or \$15.3 million. In response to this crisis, the City has eliminated 123.25 positions (33% of its total workforce), authorized the closure of its libraries, recreation centers, and reduced service provisions. Loss of one-half of the Parks Maintenance staff and other maintenance personnel in the City's Maintenance Services Department has compromised municipal stormwater management capabilities. While revenues have been decreasing, the need for services has steadily increased.

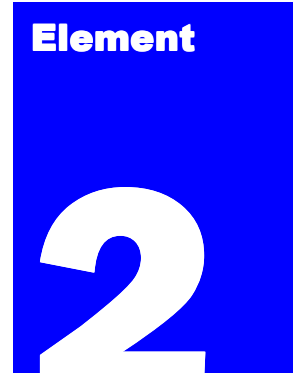
1.8 Program Effectiveness

Measuring program effectiveness is a component of each element that follows. "Program effectiveness success criteria": Measurable Goals, are summarized in the Best Management Practices tables at the end of elements 3 through 8, and generally discussed within those elements. From a broad perspective, the City will also evaluate program success and effectiveness by measuring program performance against the City's Permit. More specifically, the City will assess program effectiveness as shown in the Best Management Practices tables. Results from water quality sampling will also be used to measure bottom line success. Sampling results, as well as measurable goals identified within the elements that follow, will also be used to modify programs and alter municipal actions.⁹ Other benchmarks include surveys/questionnaires, and tracking the number of enforcement actions taken.

The City's ability to successfully collaborate with watershed stakeholders, train its staff to faithfully implement the intent and meet Permit requirements, and educate the public will determine how well it succeeds in meeting the federal and state mandates provided in the City's Permit. The City also looks to develop a funding source that ensures long-term viability of the City's Urban Watershed Management Program.

Comment [cc4]: Is this the correct term given we have changed the name of the document to the SWMP?

⁹ CASQA, *Stormwater Program Effectiveness Assessment Survey*, prepared by Eisenberg, Oliveri, and Associates (EOA) and Larry Walker Associates, July 2005. "The methods most frequently used by Municipal Phase I programs to evaluate the effectiveness of their overall stormwater management program...include: 1) verifying compliance with NPDES permit requirements (73%), 2) receiving water monitoring (40%), 3) survey/questionnaires (33%) and 4) tracking the number of enforcement actions taken by their agency (33%)."



Water Resources

"Any river is really the summation of the whole valley. To think of it as nothing but the water is to ignore the greater part."

— Hal Borland

2.1 Introduction

Once a small agricultural community of 14,000¹ people, Salinas today is the largest city within California's Central Coast and the seat of county government. Within its approximately 12,000 acres, the City has become a residential, suburban community within an agricultural setting. The City's population is now a growing 152, 677 people.² Salinas is also Monterey County's workforce center, supporting approximately one-third of all jobs.

In 2005, agricultural production within Monterey County accounted for nearly \$3.3 billion in sales.³ Agricultural production, and the City's economy and quality of life, rely upon a steady supply of clean water. Waterways in the Salinas Valley are conjunctive, that is, surface water flows recharge groundwater. Groundwater supplies most of the region's water. Runoff from the Gabilan and Santa Lucia Mountain Ranges are tributary to Salinas River flows. Runoff from local mountains, farms and developed areas can carry with it more than merely water. Runoff can also carry a mix of pollutants.

This element provides a brief summary of hydrologic conditions within the City of Salinas and nearby watersheds.

¹ 1950

² State Department of Finance, 2004

³ County of Monterey Agricultural Commissioner's Office, *Monterey County Crop Report, 2005*

2.2 Hydrology

The River itself has no beginning or end. In its beginning, it is not yet the River; in its end, it is no longer the River. What we call the headwaters is on a section from among the innumerable sources which flow together to compose it. At what point in its course does the Mississippi become what the Mississippi means?"

— T.S. Eliot

The City of Salinas is located in California's central coast within Monterey County. It lies within the northern portion of the Salinas Valley flanked by the Gabilan Mountains to the northeast and Santa Lucia Mountains to the southwest---thirteen miles from the coast. Waterways run ribbons through the City (Figure 2.0). Four creeks drain the Gabilan range. These include the Santa Rita, Gabilan, Natividad, and Alisal Creeks. The lower reach of Alisal Creek has been channelized and is known as Reclamation Ditch 1665 (Rec. Ditch). Water from these creeks flows through portions of the City and ultimately empty into Monterey Bay. Together, these waterbodies and their watersheds

Figure 2-0 Regional Surface Hydrology of the Lower Salinas Valley Sub-Watershed



Source: 606 Studio Department of Landscape Architecture, California State Polytechnic University, Pomona Vision Plan for Carr Lake Regional Park, June 2003.

form the hydrologic backbone of the Reclamation Ditch Watershed.⁴ Except for Santa Rita Creek (See Figure 2-2), each creek is tributary to Carr Lake.⁵

From their headlands, each of the four creeks makes several passes through farmlands between intermittent trips through urban development. Unlike the rest of the City that is tributary to the Reclamation Ditch, the City's most southern area drains into the Lower Salinas River Sub-Watershed. Runoff here flows to the Salinas River.

Within City limits, the Lower Salinas Sub-Watershed is confined to a relatively small area--2.5 square miles. Outside of the City limits, this is not the case. The Salinas River is the major waterway within Monterey County, and the nation's longest submerged river.⁶ It travels 155 miles northwest from San Luis Obispo County through the Salinas Valley into Monterey Bay.

The City's location relative to the Reclamation Ditch Sub-Watershed is depicted in Figure 2-1. Salinas can be identified lower center by the maze of streets. The Salinas River and the portion of the City that is outside of the Reclamation Ditch Watershed, and within the Lower Salinas Valley Sub-watershed can be seen in the lower left-hand portion of the map. The City of Marina lies in the figure's southwest corner.

A closer look at the Reclamation Ditch Sub-Watershed reveals several smaller watersheds. Each of these smaller areas drains to creeks, detention basins and/or other water bodies as shown in Figure 2-2. Carr Lake and the Reclamation Ditch collect flows from upstream creeks. During heavy storms, Carr Lake serves as a detention basin.

Comment [cc1]: You've mentioned a lot of water bodies. Which ones in particular?

Outside of the Carr Lake drainage basin lays a small watershed (approximately 2 square miles) called Markeley Swamp. Water from this drainage system also empties into the Reclamation Ditch northwest of City limits. Farther north, and within the City's northwestern border, lies Santa Rita Creek. This small creek drains its own minor sub-watershed (0.5 square miles) and flows through a small portion of the City before reaching the Reclamation Ditch below City limits. Santa Rita Creek is maintained by Monterey County Water Resources Agency.

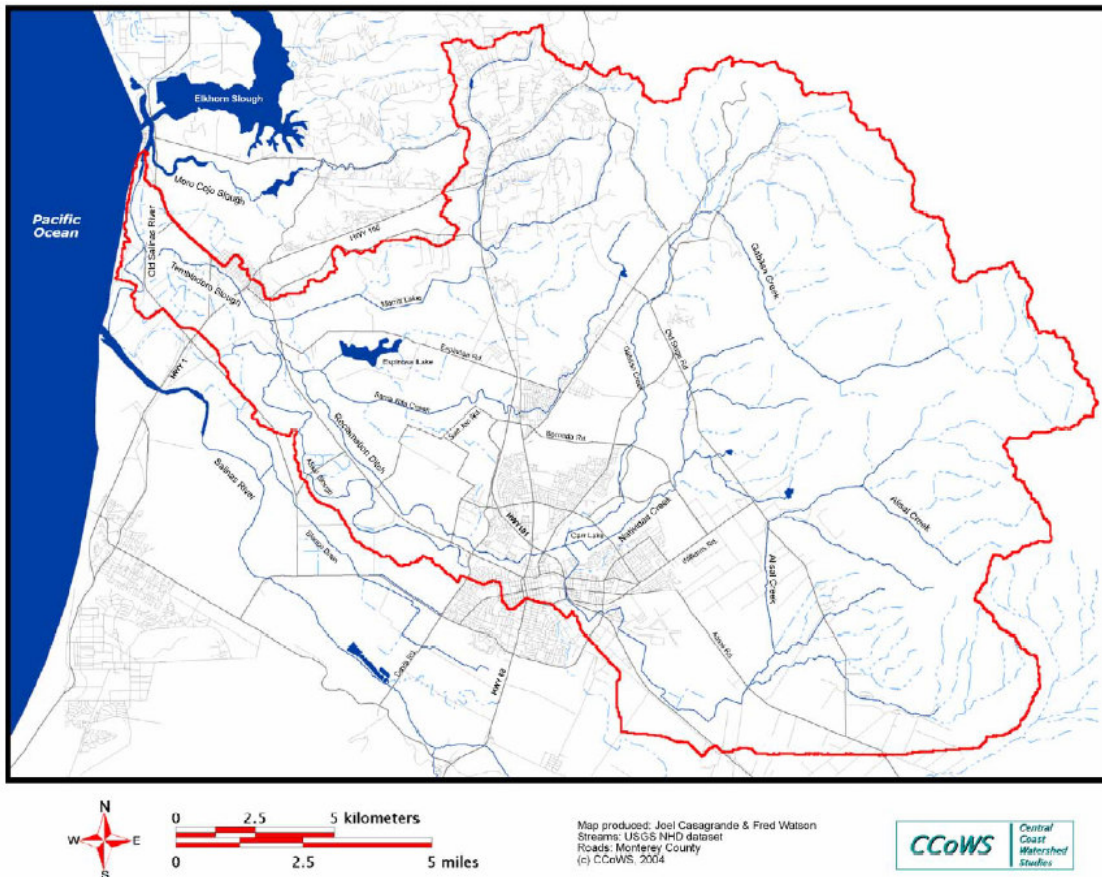
Most urban runoff within the City drains into the Reclamation Ditch and follows a path through the Tembladero Slough, Old Salinas River, Moss Landing Harbor, and the Protrero Tide Gates. The total incorporated area that drains to the Reclamation Ditch system is approximately 13 square miles.

⁴ Naming conventions of watersheds have not been consistent. Salinas chose "Reclamation Ditch" to be consistent with regional watershed planning efforts.

⁵ Today Carr Lake is a dry lakebed; it was drained and has been extensively farmed since the turn of the 20th Century. It also serves as a detention basin during flood events.

⁶ Soil Survey of Monterey County, Natural Resources Conservation Services, 1978.

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Figure 2-1 Reclamation Ditch Sub-Watershed and City of Salinas Location

Source: The Watershed Institute, California State University Monterey Bay, *Draft Reclamation Ditch Watershed Assessment and Management Plan, 2004*

Over time, the natural hydrology of the watershed has been substantially altered. The lakes and wetlands that once strung from south of Salinas to what is now Moss Landing Harbor have been drained or altered to make way for agricultural uses and urban development. Figure 2-3 depicts the extent of the area's former wetlands and 7-lake system that once extended along the Salinas Valley. Like Carr Lake, many of these areas are now under cultivation.

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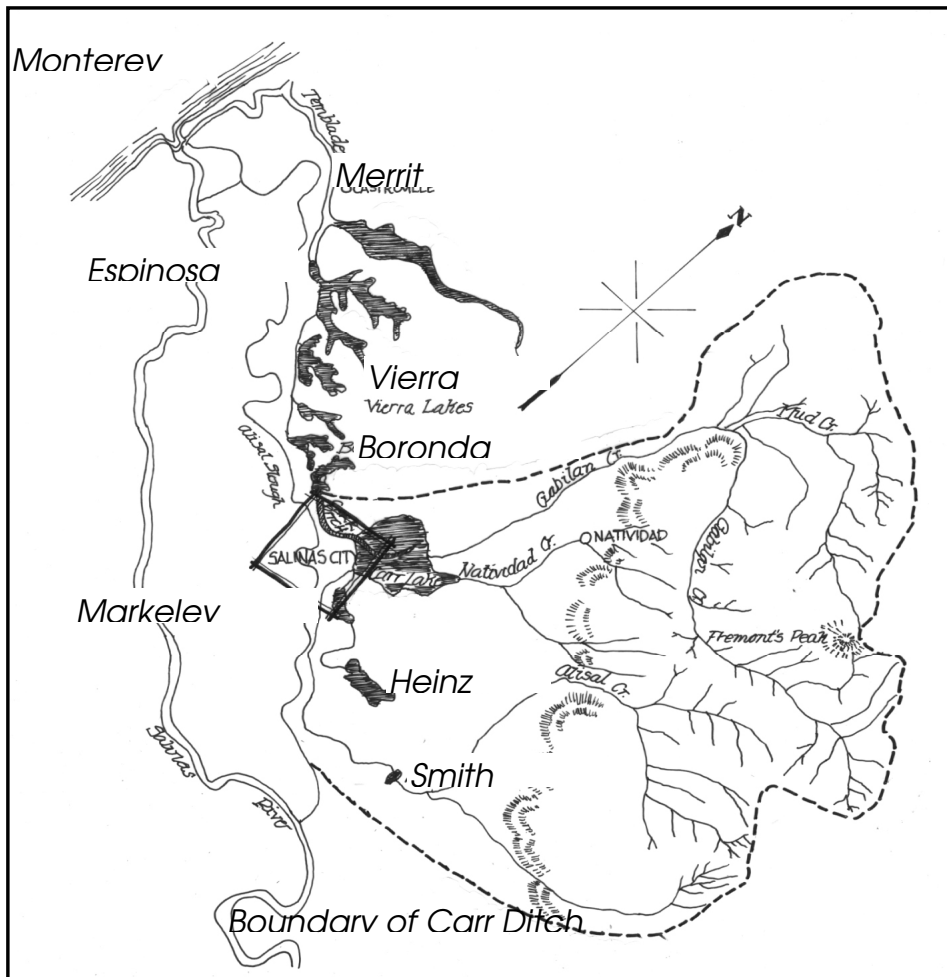
Figure 2-2 Watersheds and Waterbodies within Municipal Limits



Source: Camp, Dresser and McKee, City of Salinas Stormwater Master Plan, May 2004.

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Figure 2-3 Lower Salinas Valley Historic Wetlands and 7 Lake System



2.3 Flooding

"The (Salinas) river tore the edges off the farm lands and washed whole acres down; it toppled barns and houses into itself, to go floating and bobbing away. It trapped cows and pigs and sheep and drowned them in its muddy brown water and carried them to the sea."

— John Steinbeck

Stormwater runoff from the Gabilan Mountains poses one of the greatest flood risks to Salinas. Overflows from Salinas River pose a lesser risk due to its distance from City

limits. Runoff from the Gabilan Mountains can pass quickly through cultivated farmlands, picking up sediments and exacerbating risks. The flood path from upstream areas draining the Gabilan Range goes through Carr Lake. For decades, Carr Lake has protected Salinas from flooding. However, extreme rainfall events will overtop lake banks.

Carr Lake substantially contains flood events smaller than the 25-year flood. For larger storms this is not the case. In 1998, Salinas experienced a 33-year flood event. Areas immediately surrounding Carr Lake, such as Sherwood Lake Mobile Home Park, experienced flooding. During the 1988 storm, waters breached Highway 101 and Natividad Creek. During a 100-year flood, these areas would also be inundated. Figure 2-4 shows the extent of the 100-year floodplain at Carr Lake. The 100-year flood would significantly affect areas southeast and west of Carr Lake. Businesses, and apartments neighboring the mobile home park would also be severely affected by the 100-year flood.

Comment [cc2]: You have your verb tenses mixed up here, so this paragraph is really confusing.

2.4 Municipal Storm Water Drain System

The City of Salinas operates a man-made municipal storm drainage system to manage runoff within the City. This system consists of a series of gravity-drained pipes that flow to nearby receiving waters and detention basins (Figure 2-3). The one exception to this system lies at the southwest City boundary. Here, at the site of the former City wastewater treatment plant, lie the Salinas River Storm Drain Pump Station and Blanco Detention Basin. Stormwater from the southerly portion of the City is diverted here and then mechanically pumped into the Salinas River via a 66-inch corrugated metal outfall pipe. A detention basin provides temporary storage when inflow amounts exceed pump capacity.

Detention basins are employed throughout the City as part of its flood control and storm drain system. Many of these basins are contained within City parks. Detention basins also provide limited water quality benefits. Since most municipal detention basins drain into the county's Reclamation Ditch, basins are designed to meet county requirements. Studies throughout California have shown that basins yield greater water quality benefits when designed to meet 2-year storms, at minimum.⁷ Monterey County Water Resources Agency requires that detention basins handle 10-year storms.

City detention basins primarily function to ameliorate flows and reduce the cost and size of downstream stormwater infrastructure. This intent is consistent with county design requirements and reflects the county's historic past when the present Water Resources Agency was called the Monterey County Flood Control and Water Conservation District.

In 2004, the City commissioned an update to its *Storm Water Master Plan*. That study analyzed the capability of over 74-miles of larger storm drain lines to handle 5- and 20-year storms. City consultants concluded that the City's existing drainage infrastructure operated at capacity. This is because the primary receiving body for the City's

⁷ Camp, Dresser, McKee, City of Salinas *Storm Water Master Plan*, May 2004

Figure 2-4 100-Year Flood Plain Carr Lake Area

Source: Federal Emergency Management Agency, City of Salinas

stormwater flow, the Reclamation Ditch, lacks the capacity to handle additional runoff.

One of the most common reasons for drain line obstruction is sedimentation. The plan noted City maintenance personnel have reported that the most significant major drainage flow problems within the City occur at the northern municipal boundary where adjacent agricultural fields drain into municipal operations.

*"At these locations, agricultural fields can overtop the tailwater ditches and either enter the City's storm drain system at inlets at the boundary or flow in City streets to an inlet with capacity. The agricultural runoff has a very high sediment load and mud is deposited in the City storm drain system and City streets."*⁸

⁸ Ibid

In 2004, the City spent \$270,000 to dredge sediment from the reach of Gabilan Creek nearest the City boundary at Boronda Road.⁹ This is the third large-scale sediment removal project in Gabilan Creek. Land use immediately upstream of Boronda Road is cultivated agriculture.

While exact causes of sedimentation have yet to be formally identified, sediment transport and deposition of pollutants from upstream sources into the City are a significant issue for the City of Salinas. In 1994, in a report prepared by the California Department of Fish and Game, Marine Pollution Lab and the Moss Landing Marine Laboratory, authors concluded:

“Agricultural lands receive higher levels of known poisons than any other landscape in the state. Year after year, farm chemicals drain into a ditch system which empties directly into the Monterey Bay Marine Sanctuary. Urban runoff is less important in the Salinas Valley than farm sources.”

Sediment transport has been partially addressed through the use of detention basins. While detention basins have been primarily used for flood control purposes, they also provide some stormwater quality benefits. Sediments, particularly larger sizes, may settle out when water is retained. Pollutants that adhere to sediment may settle as well. Plastics and other floatable trash, as well as water-soluble pollutants, and certain chemicals typically do not settle and consequently flow downstream through the basin. Other chemicals may be filtered through bio-remediation (see Table 4.2 of this Plan). Chemicals of concern include fertilizers, pesticides and herbicides. Elevated concentrations of nitrates, orthophosphates and sediments are conveyed from upstream agricultural sources by area creeks through the City of Salinas to the Reclamation Ditch and ultimately to the ocean.

One intended purpose of the City's 2002 Natividad Creek Detention basin project was the mitigation of these contaminants via natural wetland basin habitat restoration. The basin design feature removes most of the sediments from creek flows while nitrates and orthophosphates are bioremediated in the wetland/basin environment. Bioremediation via wetland restoration is a well-proven means for water treatment. Dentrification is accomplished in the shallow wetland area via maximum soil-water interface. Pesticide reduction is accomplished via open water sunlight exposure (photolysis) and vegetation for sorption. Other upstream contaminants, which are not listed but still carry downstream concerns, are similarly treated in the new basin.

In 2004, Salinas prepared an assessment of its stormwater infrastructure; the result was *The Storm Water Master Plan*.¹⁰ This plan focused primarily on managing flow and flooding. The 2004 Master Plan included the following findings and recommendations:

⁹ Personal communication, Development and Engineering Services Department, City of Salinas

¹⁰ Camp, Dresser and McKee, City of Salinas Storm Water Master Plan, 2004

1. City system typically operates in a surcharged condition.
2. There were a few locations where significant overflows occurred with the City's system.
3. Major drainage problems occur at the City boundary between agricultural fields where agricultural tailwater runoff overtops ditches and flows into the City. The area around Williams Road has been most adversely affected.
4. Detention of upstream agricultural runoff will be needed.
5. Hydraulic analysis revealed several locations where overflows from the drainage system would occur in a 5-year or 20-year storm: three locations in the Salinas River watershed, and several locations in the City's industrial area of the Reclamation Ditch Watershed. High backwater condition at these sites is the reason given for overflows, rather than inadequate pipe size.
6. Carr Lake is a critical detention basin for the proper functioning of the Reclamation Ditch system. "The detention function should be considered as the highest priority relative to other intended uses."¹¹

In addition to tracking water flow and trash, Salinas has also been monitoring water quality.

2.5 Municipal Water Quality / Water Monitoring

Since the mid-1990s, the City has performed regular environmental water quality monitoring. Early efforts were part of the Baseline Monitoring Program of major outfalls, screened for illicit discharges. Beginning with the issuance of the City's first NPDES permit in 1999, the City began a systematic environmental water quality monitoring program. Under the permit, the City began taking samples in December of 1999. First year efforts were conducted in collaboration with the State Regional Water Quality Control Board's Central Coast Ambient Monitoring Program (CCAMP). That initial program contained three elements: 1) surface water quality sampling, 2) stream sediment sampling, and 3) aquatic biology and habitat surveys. At the end of the first permit term in 2004, the City commissioned a report on the principal findings.¹² This element draws heavily from the findings in that report. Conclusions from this report drew upon CCAMP and the California State University at Monterey Bay Watershed Institutes' Central Coast Watershed Studies (CCoWs) information as well as the City's monitoring program results.

Comment [cc3]: You need to be consistent with either footnotes or parenthetical references.

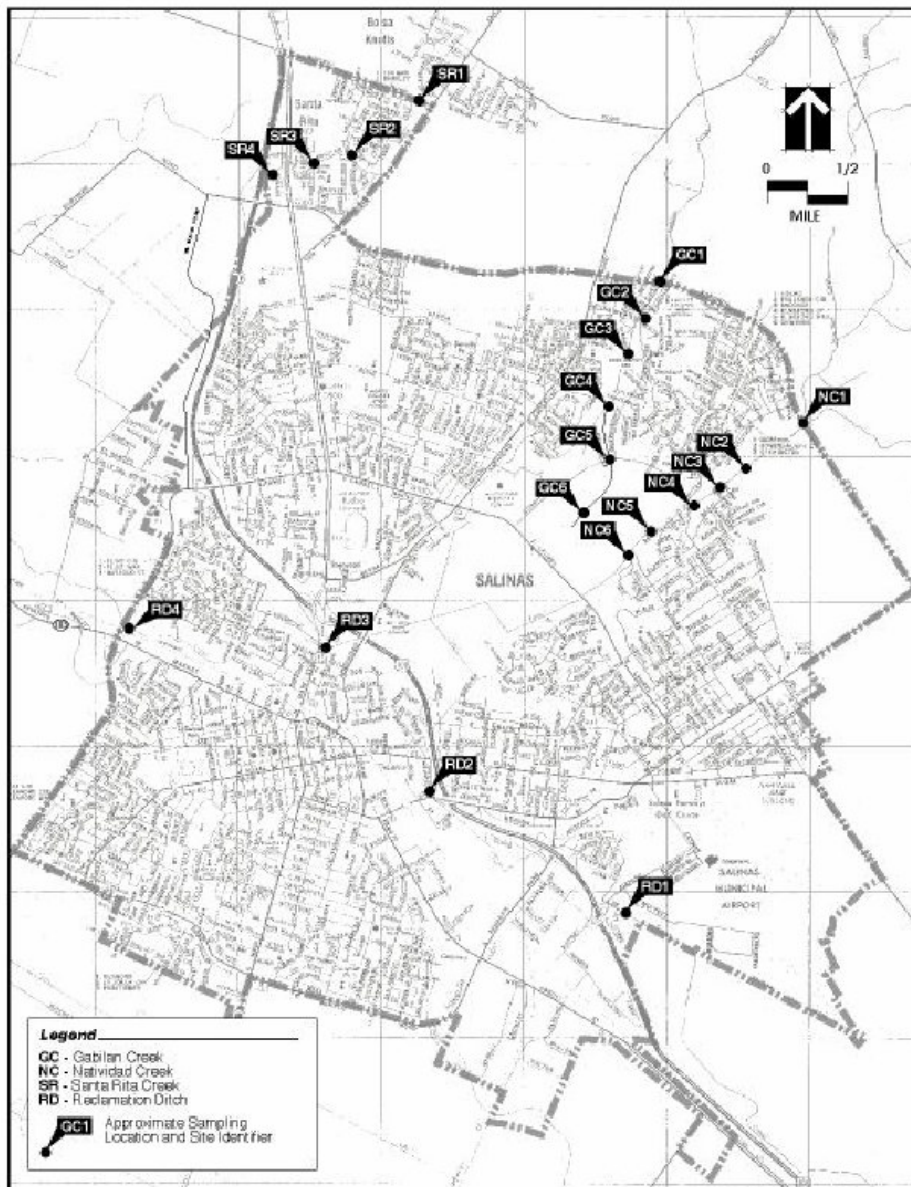
First permit term water quality monitoring focused solely on the Reclamation Ditch watershed and the four creeks that drain it: Gabilan Creek, Natividad Creek, Santa Rita Creek, and the Reclamation Ditch. During the first permit term, the City monitored twenty-one stations. Monitoring efforts included multiple stations at each of the four waterways, including a reference station at the upstream limit of the City boundary at each of the four creeks. Figure 2-5 displays the location of the 20 monitoring stations

¹¹ Ibid.

¹² Camp, Dresser, McKee, *City of Salinas Evaluation of Annual Environmental Monitoring Program Results*, Technical Memorandum, June, 2004

employed during the City's first permit term (1999-2004). Environmental monitoring sampling sites are listed by waterbody in Table 2.1.

Figure 2-5 Location of Salinas Monitoring Sites 1999-2004



Source: Camp, Dresser, McKee, Evaluation of Annual Environmental Monitoring Program Results, June, 2004 Technical Memorandum.

Table 2.1 Sampling Sites for Annual Environmental Monitoring

<i>Site ID</i>	<i>Site Location</i>
Santa Rita Creek	
SR1	Just south of bridge at Russell Road
SR2	At upstream end of Santa Rita Park (at Van Buren & Bolivar Sts)
SR3	At downstream end of Santa Rita Park (at Bolivar & Santa Rita Sts)
SR4	At dead-end of Brutus St (off west end of Bolivar St)
Gabilan Creek	
GC1	Just south of bridge at Boronda Road - at Boronda & Independence
GC2	At Independence and Danbury Streets
GC3	At end of Hyannis off Coventry St (near Independence & Nantucket)
GC4	At Little River Dr (near Independence & Lexington)
GC5	At Independence & Constitution
GC6	Downstream of GC5 in open space area
Natividad Creek	
NC1	Just south of bridge at Boronda Road - just east of Constitution
NC2	In Natividad Creek Park upstream of bridge at Freedom Parkway (off Constitution Avenue)
NC3	In Natividad Creek Park about midway between Freedom Parkway and Las Casitas Drive (adjacent to basketball court)
NC4	Downstream end of Natividad Creek Park – upstream of bridge at Las Casitas Dr
NC5	Midway between Las Casitas and Garner – off Ranchero Drive (accessway adjacent to 1113 Ranchero Drive)
NC6	At dead-end of Garner Avenue (north end)
Reclamation Ditch 1665	
RD1	At end of De La Torre Street
RD2	North side of bridge at Griffin & John Streets
RD3	At Bridge Street east of Main Street
RD4	East side of Davis Road
Reference Station on Gabilan Creek	
GC-RF2	Gabilan Creek at crossing of Crazy Horse Road

Source: Camp, Dresser, McKee, Evaluation of Annual Environmental Monitoring Program Results, June, 2004 Technical Memorandum.

A. Results from 1999-2004 Environmental Monitoring Program

Two principal conclusions from the 1999 through 2004 environmental monitoring effort included primary identified pollutant loads were those influent into Salinas and the lack of clear identifiable trends. “The primary pollutant sources that could be identified under the City’s monitoring program were the loads coming from the agricultural fields and rangeland located upstream of the City. Currently any impact to the instream concentrations with the City is masked by the quality that enters from upstream.”¹³ 2.) There was a lack of identifiable trends. Quoting from the report, “This lack of identifiable trends is a reflection of the quality of the water entering the City.” CDM further cited a conclusion from a California State University Monterey Bay’s Central Coast Watershed Studies (CoWS) nutrient study that found that the significant areas of agricultural and grazing land upstream from the City appear

Comment [cc4]: This does not sound right. Do you mean: “permit’s first term” or “first term of the permit”? The language needs to be cleaned up.

¹³ Camp, Dresser, McKee, Evaluation of Annual Environmental Monitoring Program Results, June, 2004 Draft Technical Memorandum

to negatively impact water quality. "When the waterways enter the City, the levels of nutrients, bacteria, and solids are already elevated and any additional load from the City does not result in any consistent change in the water quality concentrations."¹⁴

A. Local Watershed / Creek Assessments

Within seasons, water quality parameters were fairly consistent in all four waterways. Data collected from the first permit term failed to yield a single location that could be classified as a hot spot where consistently higher, or poorer levels were detected.

Total coliform levels were relatively high in all waterways. Wet season data was, in general, similar to data collected during the dry seasons. As might be expected, water temperatures were generally higher during spring and summer months when compared to fall and winter recordings. Chlorophyll-a and conductivity levels appeared higher in all waterways during spring months. Higher conductivity levels were most notable in the Reclamation Ditch. Water quality for individual creeks is summarized in the following paragraphs.

Gabilan Creek: First year data revealed slight upstream to downstream trends among some water quality parameters. Conductivity, ammonia (total N) levels, and total Kjeldahl nitrogen levels were slightly decreased at downstream sites when compared with upstream. Total suspended solids (TSS) and visible suspended solids (VSS) levels were considerably higher upstream. During the course of the first permit term, there were no notable changes over time in any of the water quality parameters.¹⁵ When compared with other waterways, Gabilan Creek showed consistently higher levels of nitrate.

Comment [cc5]: Be consistent: footnote or parenthetical reference.

Natividad Creek: For most parameters data was fairly variable and inconsistent. However, several parameters showed upstream to downstream trends. Nitrate and TSS levels were the most distinctive in this trending. Conductivity levels also showed a distinct trend upstream to downstream. Over the course of the first permit term's monitoring period all parameters remained fairly consistent year to year within Natividad Creek.

Santa Rita Creek: Monterey County Water Resources Agency is and has been responsible for managing the Santa Rita Creek watershed. Over the monitoring period, water quality levels varied more in Santa Rita Creek than in the other three creeks. The majority of water quality parameters were fairly consistent downstream to upstream. However most parameters were at higher levels relative to the reference site. Turbidity, conductivity and total dissolved solids (TDS) levels showed the largest increases. Higher nitrite, ammonia and total Kjeldahl nitrogen levels were found in Santa Rita Creek relative to Gabilan and Natividad Creeks.

¹⁴ The Watershed Institute California State University Monterey Bay, Central Coast Watershed Studies

¹⁵ Camp, Dresser, McKee, Evaluation of Annual Environmental Monitoring Program Results, June, 2004 Technical Memorandum

Reclamation Ditch / Alisal Creek: Consistent with the creeks that are tributary to it, Reclamation Ditch parameters showed upstream to downstream trends. There were decreases in turbidity levels as water flowed through the City. Similarly, nitrate (as N and as NO₃) phosphorus and orthophosphate levels also decreased as water flowed downstream through the City. Reclamation Ditch parameters were generally higher for phosphorus and orthophosphate, as well as nitrite, ammonia and total Kjeldahl nitrogen levels when compared to the other creeks.

2.6 Regional Water Quality Monitoring

In addition to conducting independent monitoring within municipal limits, the City's environmental monitoring program integrates data collected by others in the watershed. This included data collected primarily by three other groups: the Regional Water Quality Control Board, and its Central Coast Ambient Water Program (CCAMP); the Watershed Institute of California State University Monterey Bay in its Central Coast Watershed Studies (CCoWS);¹⁶ and the agricultural community as part of the RWQCB's Agricultural Waiver Program. Data from this latter effort was not available for inclusion in this Plan. However, beginning with the winter of 2006, municipal and agricultural monitoring efforts will be integrated. A more complete discussion of how the City will integrate water quality monitoring with agricultural programs is contained within Element 9—the City's Monitoring and Water Quality Testing and the Quality Assurance Program Plan.

Analysis of the CCAMP mean data for the 15 streams within the Salinas River Watershed revealed, "the Reclamation Ditch has some of the poorest water quality in the watershed, particularly in terms of ammonia, coliform bacteria, nitrite, and low dissolved oxygen."¹⁷ In the CCoWS report, scientist studied stations along Gabilan Creek and the Reclamation Ditch system. Results revealed that the upper reaches of the Gabilan Creek watershed to be relatively nutrient free. This changed as waters flowed through rangeland and agricultural fields. Levels of orthophosphate increased to extreme levels and nitrate and ammonia levels rose to moderate.¹⁸ Monitoring locations by the principal groups within the watershed are listed in Table 2.2 and displayed in Figure 2-6.

Comment [cc6]: Footnotes or parenthetical references. Please be consistent.

¹⁶ In 2004, The Watershed Institute prepared the *Draft Reclamation Ditch Watershed Assessment and Management Plan*. Information in this section relied upon data and analysis from that report. The City wishes to acknowledge Monterey County Water Resources Agency for granting permission to use this data.

¹⁷ Camp, Dresser, McKee, Evaluation of Annual Environmental Monitoring Program Results, June, 2004 Technical Memorandum

¹⁸ Ibid.

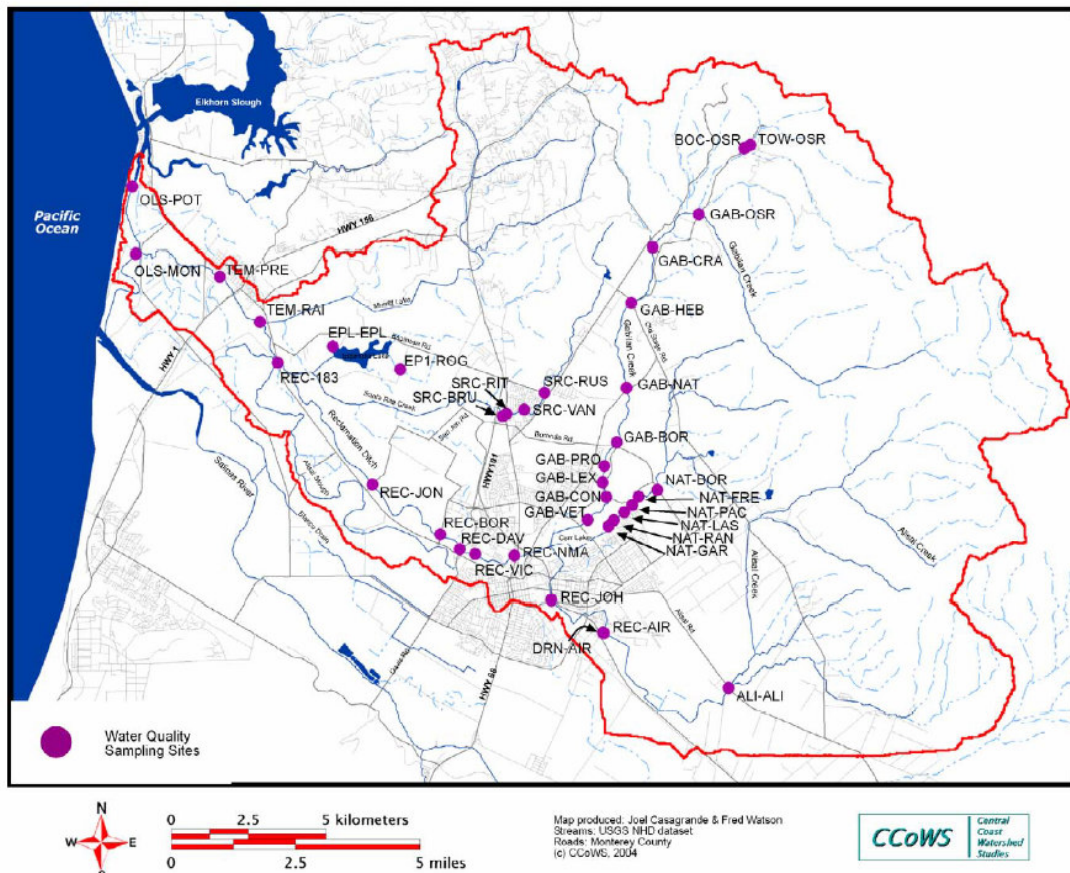
Table 2.2 Regional Monitoring Locations

CCoWS ID	CCAMP ID	UCSC ID	City of Salinas ID	Waterway Name	Bridge/Road	Easting	Northing	Datum
ALI-ALI	309UAL			Alisal Creek	Alisal Rd.	627189	4056491	NAD83
BOC-OSR				Unnamed tributary to Towne Creek	Old Stage Rd.	627694	4073554	NAD83
DRN-ALI	309AXX			Urban drain at Airport road	nr Airport Rd.	623162	4058237	NAD83
EP1-ROG				Tributary to Espinosa Lake	Rodgers Rd.	616573	4066568	NAD83
EPL-EPL				Espinosa Lake	Northeast corner of lake	614388	4067301	NAD83
GAB-BOR	309GAB		GC1-A	Gabilan Creek	Boronda Rd.	623579	4064256	NAD83
GAB-CON			GC5	Gabilan Creek	Constitution Blvd.	623240	4062520	NAD83
GAB-CRA		GA-CHR	GC-RF2	Gabilan Creek	Crazy Horse Rd.	624740	4070421	NAD83
GAB-HEB		GA-HEB		Gabilan Creek	Hebert Rd.	624041	4068678	NAD83
GAB-LEX			GC4	Gabilan Creek	Lexington Dr.	623240	4062520	NAD83
GAB-NAT				Gabilan Creek	Natividad Rd.	623895	4065983	NAD83
GAB-OSR		GA-OSC		Gabilan Creek	Old Stage Rd.	626227	4071459	NAD83
GAB-PRO			GC3	Gabilan Creek	Provincetown St.	623183	4063503	NAD83
GAB-VET			GC6	Gabilan Creek	Veteran's Park	622630	4061795	NAD83
NAT-BOR			NC1-A	Natividad Creek	Boronda Rd.	624889	4062742	NAD83
NAT-FRE				Natividad Creek	Freedom Way	624279	4062535	NAD83
NAT-GAR			NC6	Natividad Creek	nr Garner Ave.	623312	4061593	NAD83
NAT-LAS			NC4	Natividad Creek	Las Casitas Dr.	623829	4062030	NAD83
NAT-PAC			NC3	Natividad Creek	nr Pacana Cir.	624085	4062263	NAD83
NAT-RAN			NC5	Natividad Creek	Ranchero Dr. (nr Rocca Barton School)	623488	4061779	NAD83
OLS-MON	309OLD			Old Salinas River	Monterey Dunes Colony	608014	4070228	NAD83
OLS-POT	309POT			Old Salinas River	Potrero Rd.	607911	4072333	NAD83
REC-183				Reclamation Ditch	HWY 183	612604	4066775	NAD83
REC-AIR	309ALU		RD1-A	Reclamation Ditch	Airport Rd.	623129	4058253	NAD83
REC-BOR	309ALD			Reclamation Ditch	Boronda Rd.	617873	4061331	NAD83
REC-DAV			RD4-A	Reclamation Ditch	Davis Rd.	618505	4060856	NAD83
REC-JOH			RD2	Reclamation Ditch	John St.	621464	4059263	NAD83
REC-JON				Reclamation Ditch	San Jon Rd.	615668	4062916	NAD83
REC-NMA			RD3	Reclamation Ditch	North Main St.	620269	4060658	NAD83
REC-VIC				Reclamation Ditch	Victor Way	618999	4060710	NAD83
SRC-BRU			SR4	Santa Rita Creek	Brutus St.*	619889	4065078	NAD83
SRC-RIT			SR3	Santa Rita Creek	Santa Rita St.*	620002	4065150	NAD83
SRC-RUS			SR1-A	Santa Rita Creek	Russell Rd.*	621244	4065834	NAD83
SRC-VAN			SR2	Santa Rita Creek	Van Buren Ave.*	620580	4065293	NAD83
TEM-PRE	309TEM			Tembladero Slough	Preston Road	610737	4069512	NAD83
TEM-RAI				Tembladero Slough	Railroad Crossing	612031	4068079	NAD83
TOW-OSR				Towne Creek	Old Stage Rd.	627897	4073659	NAD83

* Approximate locations based on the city of Salinas Storm Water Sampling Sites Map.

Source: The Watershed Institute, Draft Reclamation Ditch Watershed Assessment and Management Plan, 2004

Figure 2-6 Reclamation Ditch Watershed Monitoring Locations



Source: The Watershed Institute, Draft Reclamation Ditch Watershed Assessment and Management Plan, 2004.

2.7 Regional Water Quality

Within the greater watershed, the City sits in a south central location of the Reclamation Ditch Watershed. It inherits water from the Gabilan Mountain Range after agricultural uses and discharges runoff to agricultural, environmental, recreational, industrial and other downstream uses. Several entities are involved with water resources management at the regional level. Most significant is the work performed by the California Regional Water Quality Control Board. In 1994, the RWQCB adopted the Central Coast Water Quality Control Plan (Basin Plan). The Basin Plan identifies beneficial uses of waterbodies, requires monitoring, and sets associated water quality objectives to protect these uses.

Beneficial uses are activities that are supportable by a specific water quality. Federal Clean Water Act Section 303(d) requires the Basin Plan to list as “non-attainment” water bodies or segments of water bodies that fail to meet water quality objectives for specific uses. Among others, beneficial uses include: municipal (MUN), domestic (DOM), agricultural (AGR) and industrial water supplies. Recreational activities are divided into “contact recreation”, such as swimming (REC-1), and “non-contact Recreation” (Rec-2) and wildlife habitat (Wild). Water bodies may also be listed for environmental beneficial uses, such as cold-water fish communities (COLD), warm-water fish communities (WARM), shellfish harvesting (SHELL), spawning habitat (SPWN), and estuarine uses (EST). In total, the Basin Plan identifies 24 such beneficial uses within the Central Coast region, and classifies waterbodies or water body segments based upon the data collected at the time of the listing.¹⁹ RWQCB beneficial use designations for creeks, lakes and other waterbodies within and near municipal limits are summarized in Table 2.3.

Within municipal limits, the Basin Plan does not list any waterbodies as non-attainment. However, within the Reclamation Ditch Watershed, upper Alisal Creek /the Reclamation Ditch and Gabilan Creek are both listed under the 303(d) program. Gabilan Creek is listed for high levels of fecal coliform bacteria for a segment prior to City. Alisal Creek/the Reclamation Ditch is listed for fecal coliform and nitrates for segments prior to City limits and again after it leaves the City for high levels of fecal coliform, nitrate, pesticides, and priority organics, and low levels of dissolved oxygen. Locations of 303(d) listed waterbodies within the Reclamation Ditch Watershed are shown listed in Table 2.4 and displayed in Figure 2-7. Pollutant stressors include widespread existence of pesticides, fecal coliform, nutrients, low dissolved oxygen, and sedimentation. Stressors and potential sources listed in Table 2.4 point to agriculture’s heavy influence in the region.

¹⁹ A complete list of Basin Plan (1994) Beneficial Uses and their definitions is available at: http://www.swrcb.ca.gov/rwqcb3/BasinPla/BP_text/chapter_2/Chapter2.html

Table 2.3 Beneficial Uses Within and Near City Limits

Waterway	Objective Code	Objective	Possible additions (see text)
Gabilan Creek	REC-1	Water contact recreation	COLD
	REC-2	Non-contact water recreation	
	MUN	Municipal or domestic supply	
	AGR	Agricultural supply	
	GWR	Groundwater recharge	
	WILD	Wildlife habitat	
	WARM	Warm fresh water habitat	
	SPWN	Spawning, reproduction, and/or early development	
	COMM	Commercial and sport fishing	
Alisal Creek	REC-1	Water contact recreation	
	REC-2	Non-contact water recreation	
	MUN	Municipal or domestic supply	
	AGR	Agricultural supply	
	GWR	Groundwater recharge	
	WILD	Wildlife habitat	
	WARM	Warm fresh water habitat	
	COLD	Cold fresh water habitat	
	SPWN	Spawning, reproduction, and/or early development	
Reclamation Ditch (a.k.a Salinas Reclamation Ditch)	REC-1	Water contact recreation	SPWN
	REC-2	Non-contact water recreation	
	WILD	Wildlife habitat	
	WARM	Warm fresh water habitat	
	COMM	Commercial and sport fishing	

Source: Adapted from *Draft Reclamation Ditch Watershed Assessment and Management Plan*, The Watershed Institute, California State University, Monterey Bay, 2004

Table 2.4 2002 Section 303 (d) List of Water Quality Limited Segment Within Reclamation Ditch Watershed

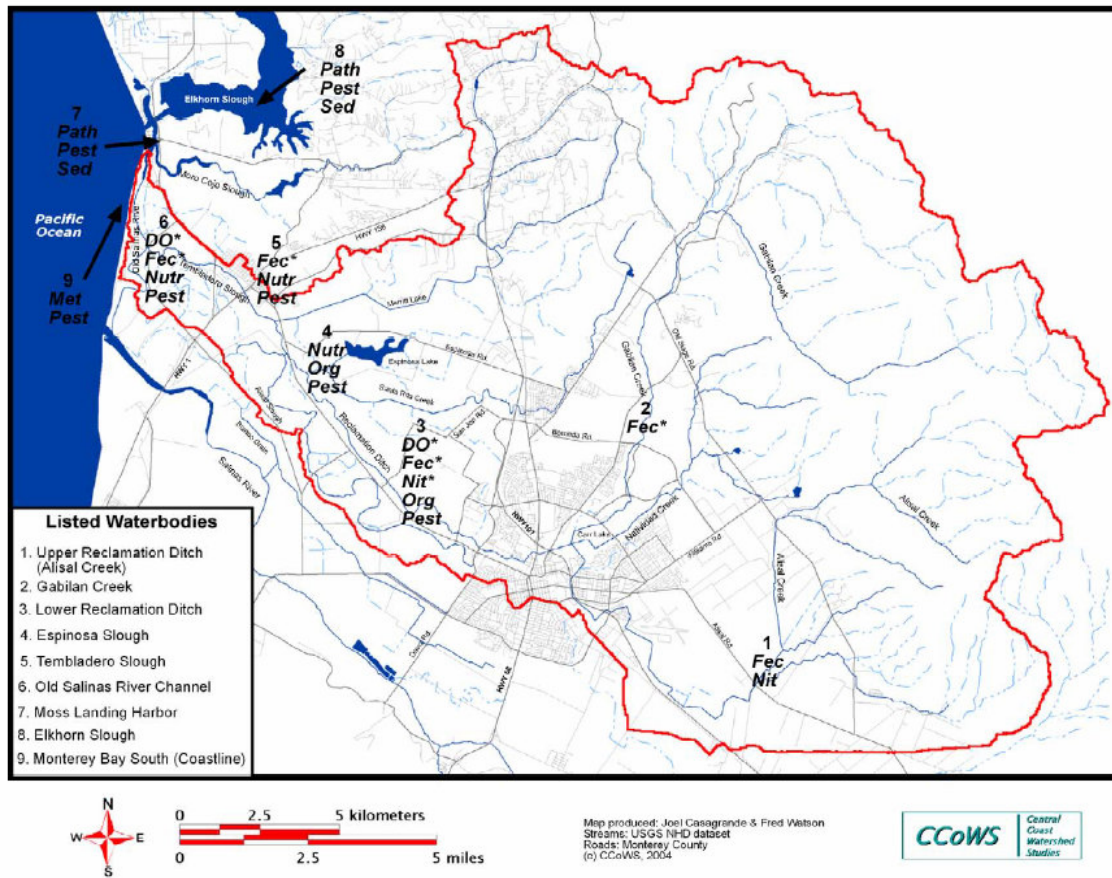
<i>Name</i>	<i>Pollutant Stressor</i>	<i>Potential Sources</i>	<i>TMDL Priority</i>	<i>Estimated Size Affected</i>
Alisal Creek	Fecal Coliform	Agriculture Range Grazing- Riparian and/or Upland Natural Sources	Low	5.8 Miles
Elkhorn Slough	Pathogens	Natural Sources Nonpoint Source	Low	2034 Acres
	Pesticides	Agriculture Irrigated Crop Production Agriculture-storm runoff Agricultural Return Flows Erosion/Siltation Contaminated Sediments Nonpoint Source	Low	2034 Acres
	Sedimentation/ Siltation	Agriculture Irrigated Crop Production Agriculture-storm runoff Channel Erosion Nonpoint Source	Low	2034 Acres
Espinosa Slough	Nutrients	Agriculture Storm sewers	Low	1.5 Miles
	Pesticides	Agriculture Urban Runoff/Storm Sewers	Medium	1.5 Miles
Gabilan Creek	Fecal Coliform	Urban Runoff/Storm Sewers Natural Sources Nonpoint Source	Low	6.4
Monterey Bay South (Coastline)	Metals	Surface Mining	Low	12 miles
	Pesticides	Agriculture	Low	12 miles
Moro Cojo Slough	Low Dissolved Oxygen	Source Unknown	Low	62 acres
	Pesticides	Agriculture Irrigated Crop- Production Agricultural storm runoff Agricultural Return Flows Nonpoint Source	Medium	62 acres
	Sedimentation / Siltation	Agriculture Irrigated Crop Production Agricultural storm	Low	62 acres

Name	Pollutant Stressor	Potential Sources	TMDL Priority	Estimated Size Affected
		runoff Construction / Land Development Nonpoint Source		
Moss Landing Harbor	Pathogens	Agriculture Nonpoint Boat Discharge	Low	79 acres
	Pesticides	Agriculture Irrigated Crops Specialty Crops	Low	79 acres
	Sedimentation/ Siltation	Agriculture Irrigated Crops Agriculture storm runoff Hydromodification Dredging Channel Erosion Erosion/Siltation Nonpoint source	Low	79 acres
Old Salinas River Estuary	Fecal Coliform	Source Unknown]	Low	74 acres
	Low Dissolved Solids	Source Unknown	Low	74 acres
	Nutrients	Agriculture Irrigated Crops Agriculture- irrigation tailwater Nonpoint source	Medium	74 acres
	Pesticides	Agriculture Irrigated Crops Agriculture storm runoff Agriculture-irrigated tailwater Agriculture tailwater Agriculture Return Flows Nonpoint source	Medium	74 acres

Name	Pollutant Stressor	Potential Sources	TMDL Priority	Estimated Size Affected
Salinas Reclamation Canal	Fecal Coliform	Agriculture Pasture Grazing-Riparian and/or Upland Urban Runoff/Storm Sewers Natural Sources Source Unknown	Low	5.9 miles
	Low Dissolved Oxygen	Source Unknown	Low	5.9 miles
	Nitrate			
	Pesticides	Minor Industrial Point Source Agriculture Irrigated Crops	Low	5.9 miles
		Agriculture storm runoff Agricultural irrigation tailwater Agricultural Return Flows Nonpoint Source	Medium	5.9 miles
	Priority Organics	Minor Industrial Point Source Agriculture Irrigated Crops Agriculture storm runoff Agricultural Return Flows Urban Runoff/Storm Sewers Source Unknown Nonpoint Source	Medium	5.9 miles
Salinas River (lower estuary to near Gonzales Rd crossing, south of Salinas-watersheds 30910 and 30920)	Fecal Coliform	Source Unknown	Low	31 miles
	Nutrients	Agriculture	Medium	31 miles
	Nutrients	Nonpoint Source	Medium	197 acres
Salinas River Lagoon (north)	Pesticides	Agriculture	Medium	197 acres
	Sedimentation/ Siltation	Nonpoint Source	Medium	197 acres

Source: Central Coast Regional Water Quality Control Board, *Approved by USEPA: July 2003*

Figure 2-7 303(d) Listed Waterbodies within the Reclamation Ditch Watershed



DO = Low dissolved oxygen
 Fec = Fecal Coliform
 Nit = Nitrate
 Nutri = Nutrients
 Org = Priority Organics
 Pest = Pesticides
 Sed = Sedimentation/Siltation
 Met = Metals

* Listings added in 2002 (approved by EPA, 2003). All others were included in the 1998 listing.

Source: The Watershed Institute, Draft Reclamation Ditch Watershed Assessment and Management Plan, 2004.

Municipal Maintenance

Element

3

“And the dry years would come, and sometimes there would be only seven inches or eight inches of rain. The land dried up...Some families would sell out for nearly nothing and move away. And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way.”

– John Steinbeck

3.1 Introduction

The City of Salinas is responsible for providing for the health, safety and welfare of its residents and business community, and for protecting its natural resources. Moreover, it is responsible for providing a platform that enables the community to achieve a high quality of life.

City departments have responsibilities that affect natural resource management. The City’s Maintenance Services Department’s (Department) primary role is to maintain municipal facilities. These include parks, buildings, streets, vehicles, and sewage and stormwater facilities. The Department maintains over 60 properties. It provides sewage conveyance and stormwater drainage maintenance services to the more than 150,000 people in an area that covers 12,000 acres.

This program element describes the City’s municipal maintenance program to protect water quality through its maintenance activities. This element is comprised of measures designed to ensure municipal operations and municipal facilities are managed in such a way as to minimize the pollutants generated and potential for pollutants to enter the storm drain system. These measures consider all municipal facilities and activities that could potentially be sources of pollutants to the storm drain system. This element is prepared in compliance with Section V. of Attachment 4 to the City’s National Pollutant Discharge Elimination System Permit (Municipal Permit). See Table 3.1.

3.2 Goals / Measurable Goals

Three overarching goals guide activities identified in this element:

1. Protect local water resources by reducing pollutants from municipal activities and operations to the maximum extent practicable (MEP).
2. Lead the community by example: showcase best management practices that could also be implemented in the community at-large.
3. Develop and implement management activities that use municipal resources effectively and efficiently.

In addition, the City has established the following general 24 measurable goals, as well as creating measurable goals for each BMP (Table 3.7). Each goal and identified performance standards, once accomplished, constitute compliance with Permit requirements. Measurable Goals and all other BMPs contained within this and all Plan elements are summarized in Table 3.7 Summary of Best Management Practices.

- a. One hundred percent of existing municipal maintenance staff trained by Year 1, then all new employees trained within one year after hire. Annual training will take place each year after Year 1.
- b. City will perform pre- and post-testing to measure training effectiveness. Training will include how each employee's respective duties relate to the larger City water quality management goals, as well as, specific BMPs for their respective duties. Success will be measured by the number of employees attending (80% of invitees); the number of employees who receive a passing score of 75-percent or above.
- c. The City's Maintenance Services Department will prepare an annual employee training program that will be completed by September 1 of each year for the following reporting year. Training will include proper use of checklists for staff who will serve inspection functions regarding municipal facilities, appropriateness of BMPs and SWPPPs as applicable.
- d. Supervisors of respective division units will record and summarize disposal of hazardous materials such as pesticides and used motor oils in the City's Annual Report. City to re-evaluate procedures at completion of annual review and recommend changes as deemed necessary.
- e. Implement management practices to minimize irrigation runoff from 80% of irrigated municipal sites by end of Year 3.
- f. One hundred percent (100%) of chemical spraying applied when weather is dry and air is calm (no rain or winds of over 10-miles per hour) is predicted.
- g. Streets are scheduled to be swept once per week in commercial and industrial areas and twice per month in residential neighborhoods.
- h. One hundred percent (100%) of vehicle maintenance will be performed under covered areas or indoors whenever possible.
- i. Oil separators will be added and paved areas of City Corporation Yard replaced by Year 2 of Permit.
- j. One hundred percent (100%) of storm drain inlets in Corporation Yard will be stenciled by Year 1. Any new inlets that are created thereafter will be stenciled at the time of installation. Stenciling will be redone in Year 5.

Stenciling of non Corporation Yard inlets is discussed in Element 6 and listed in Table 1.2.

- k. All inlets to the MS4 and municipal outfalls to receiving waters will be inventoried, mapped and submitted to the Regional Board by February 2007.
- l. Facilities, parks and wastewater division managers will oversee annual site inspections for each of their respective facilities. One hundred percent (100%) of all deficiencies defined by an inspection check list and SWPPPs will be corrected, or included in Maintenance Services Department's annual fiscal year budget request and/or its capital improvement program budget request.
- m. Wastewater Division will implement a comprehensive management approach to maintaining the City's storm drain system. Components for this approach include: 1.) updating the mapping and inventory of inlets and outfalls, 2.) itemizing regular maintenance activities by facility, 3.) documenting required maintenance and work performed, 4.) providing recommendations and additional specialized work, as needed, 5.) learning about and documenting appropriate BMPs, and 6.) preparing annual maintenance schedules by either activity or facility. Park's Maintenance, and the Building's Maintenance Divisions will also each prepare similar site management plans for their respective facilities. Records will be kept on-file and summarized in writing annually to the Director by September 15 of each year.
- n. Wastewater division will inspect and clean storm drain "hot spots" based upon above identified maintenance schedules. Past inspections were performed based upon an "as needed" basis.
- o. Catch basins, inlets, structural controls and municipal outlets are to be inspected and cleaned based upon identified maintenance schedules, but at minimum of once each year.
- p. Maintenance Services Department to inventory and establish maintenance requirements and schedules for all municipally owned parking lots, facilities and roads. Completed and implemented by Year 1.
- q. Maintenance staff will implement a program to regularly (daily) inspect and empty trash enclosures at municipal sites to prevent trash from being discharged into the community or receiving waters. One hundred percent (100%) of trash enclosures will be inspected daily, or as noted in contract with operator.
- r. To avoid pollutants from residual materials within municipal recyclable pesticide containers or the containers themselves becoming pollutants, all (100%) municipal recyclable containers will be disposed of/recycled at the Monterey County Agricultural Commissioner's monthly disposal events.
- s. As trash reduction is a key component of this Plan, streets within business districts will be scheduled for weekly sweeping; residential streets will be scheduled for sweeping every other week.
- t. All (100%) staff members that apply chemicals will be trained annually. All application staff will receive training on the topic of storm water protection at this annual event. The Annual Pesticide Applicator's training event will include a post-training test to determine the effectiveness of the training provided. Scores of 75% correct will be viewed as successful completion.

- u. Chemicals will not be sprayed with rain is forecast within 24-hours, or winds are projected to be greater than 7-miles per hour.
- v. To ensure that only highly-trained staff purchase, schedule use and apply pesticides, all (100%) supervisory staff responsible for pesticide application oversight will be certified as Qualified Pest Control Applicators or Pest Control Advisors. Supervisory staff will participate in, at minimum, three meetings per year to review the application program, monitor results, and make recommendations for improvement. Integration of IPM approaches will be part of each agenda.
- w. Foliar pesticide application to existing street trees will be reduced 25-percent during the term of this permit from previous level. Additional trees added from development projects will be taken into consideration for this calculation.
- x. Tree species and varieties for development projects will exclude varieties that are known to have pesticide problems.
- y. Visual inspection of streets will be performed monthly as part of the City Street Sweeping Program.

Table 3.1 Permit Requirements – Municipal Maintenance

Section	Requirement (Summary)	Municipal Permit Section
3.3	Develop a municipal maintenance program	V
3.4	Prepare an inventory and map of all inlets and outfalls to MS4	V a
3.5	Ensure storm drain system is properly operated and maintained.	V b
3.5	Inventory and establish maintenance requirements/schedules for all municipal facilities—roads, buildings, parking lots, etc.	V c
3.5	Implement BMPs within 1 year	V c i
3.5	Sweep all roads quarterly	V c ii
3.5	Designate and ensure BMP implementation for municipal maintenance activities. Include in a manual	V d
3.5	Implement BMPs to reduce the effects of pesticides/herbicides/fertilizers.	V e
3.5	BMPs shall include 5 components, including education, IPM, etc. By end of 5 th year, eliminate all use of pesticides on SWRCB 303(d) list for the lower Salinas River. Annually train employees using non-registered pesticides, herbicides, or fertilizers.	V e
3.5 B	Develop and implement SWPPPs within 18 months of Permit	V f
3.5 B	Annually inspect all municipal facilities. Record results; begin by 2/07	V g
3.5 A	Annually review maintenance procedures and management practices. Make revisions < 90 days and report in annual	V h

	report.	
3.5	Provide annual training	VI

3.3 Strategy

The fundamental strategy embedded in this and all elements of this Plan is that the City will identify and seek partners within the watershed to achieve stated goals. Activities will be based upon a collaborative approach with stakeholders within the watershed and cooperative work within departments and the private sector to achieve mutual watershed management/water quality protection goals. Additionally for this and all of this Plan's elements, the City will work to implement practices and programs for their proven benefits and their success in reducing pollutants of concern.

As municipal water sampling during the first permit term evidenced a lack of identifiable trends¹ and did not reveal specific municipal practices that were a source of pollution, activities contained within this Plan are based upon industry standards and local knowledge of conditions. For this permit term, this element primarily focuses on abating trash and eliminating adverse impacts from the use of chemical pesticides. If littering and widespread application of pesticides and fertilizers can be substantially reduced, then pollutants entering the water system can also be reduced. A total of nineteen BMPs are proposed for Municipal Maintenance operations. These are listed in Tables 3.5 and 3.6. A description of each BMP, the approach intended, suggested protocols, associated training, and inspection are individually summarized by BMP in Appendix B. Programs identified within this Element also include BMPs and management activities within other elements. For example, reduction of trash is a featured program that involves several different activities. Public education and outreach activities associated with the City's trash reduction efforts are discussed in Element 6 (Public Education and Outreach) and Element 7 (Commercial and Industrial Facilities).

The BMPs contained within this element also address the following pollutants of concern: sediment, metals, nutrients, vehicle waste products, organic carbon, oil and grease, coliform, paints, concrete, fuels, automotive fluids, and other potential pollutants from municipal non-stormwater discharges (Table 3-1 a). The following objectives guided selection of the BMPs contained within this element:

- Conduct maintenance and operations of City of Salinas owned properties in a manner that protects water quality in the City of Salinas region;
- Inspect City owned and leased properties annually for compliance with this Plan and the City's Municipal Permit;
- Move towards an Integrated Pest Management (IPM) approach to landscape maintenance and control pollution from pesticides, herbicides and fertilizers;
- Educate Maintenance Services Department staff and contractors regarding Municipal Permit requirements and City goals and objectives;
- Create a phased schedule to implement this element along with an associated budget through the five-year term of the Municipal Permit; and

¹ Camp, Dresser, McKee, Technical Memo, *Evaluation of the Annual Environmental Monitoring Program Results*, June 2004.

- Document water quality protection activities conducted by Maintenance Services Department staff as a means to better understand water quality inputs and outputs.

In addition, based upon the recent monitoring program results where upstream sources were suggested as possible dominant influences on local water quality, the City will pursue watershed solutions with upstream stakeholders.²

3.4 Source Identification

The City has developed a watershed-based inventory of land use activities within the Reclamation Ditch watershed. This includes land uses within and outside of municipal corporate boundaries. For areas outside of the municipal jurisdiction, information was obtained from Monterey County. For this permit term, this information is contained within City and County land use maps and aerial photographs. In the long term, a shared geographical information system (GIS) database is desired. In addition to the data contained on maps and photographs, much of the source information contained within this section was obtained from the men and women who routinely maintain City facilities. City staff have first-hand knowledge of operational and management issues. The list of areas that were researched, analyzed and inventoried include:

- Roads, streets and parking facilities;
- Flood management projects and flood control devices;
- Parks;
- Areas and activities tributary to a Clean Water Act (CWA) section 303(d)-impaired water bodies, where an area or activity generates pollutants that are included within the listing;
- Municipal Golf Course; and
- Municipal waste facilities, including:
 - Sewage collection systems
 - Municipal separate storm systems
 - Corporate yards

City facilities are organized into three main groups: 1) parks, 2) streets and highways, and 3) municipal sites, including sanitary sewage collection and municipal separate storm water systems.

In addition to a review of first term monitoring results and literature review, City staff performed an urban water runoff reconnaissance of each site. These site assessments included an inventory of existing operations and management practices, a basic assessment of localized pollutants of concerns, and a review of drainage patterns. This last step included a visual assessment of drainage offsite and downstream environments. During visits, municipal employees noted the site's proximity to natural waterways and sensitive ecological habitats. These surveys and site assessments were completed in 2005 and have been included as part of the new Municipal Management Manuals and adjusted maintenance program. Site surveys to include an assessment of the potential pollutants of concern by municipal activity as shown in Table 3-1a.

Table 3.1a: Potential Pollutants of Concern by Municipal Activity**Potential pollutants likely associated with specific municipal facilities**

Municipality Facility Activity	Potential Pollutants								
	Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Building and Grounds Maintenance and Repair	X	X	X	X	X	X	X	X	X
Parking/Storage Area Maintenance	X	X	X	X	X	X	X		X
Waste Handling and Disposal	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Fueling			X	X		X	X		
Vehicle and Equipment Maintenance and Repair				X		X	X		
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X		X	X		
Outdoor Loading and Unloading of Materials	X	X	X	X		X	X	X	X
Outdoor Container Storage of Liquids		X		X		X	X	X	X
Outdoor Storage of Raw Materials	X	X	X			X	X	X	X
Outdoor Process Equipment	X		X	X		X	X		
Overwater Activities			X	X	X	X	X	X	X
Landscape Maintenance	X	X	X		X			X	X

Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>) (slightly modified)**Potential pollutants likely associated with municipal activities**

Municipal Program	Activities	Potential Pollutants								
		Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Roads, Streets, and Highways Operation and Maintenance	Sweeping and Cleaning	X		X	X		X			X
	Street Repair, Maintenance, and Striping/Painting	X		X	X		X	X		
	Bridge and Structure Maintenance	X		X	X		X	X		
Plaza, Sidewalk, and Parking Lot Maintenance and Cleaning	Surface Cleaning	X	X			X	X			X
	Graffiti Cleaning	X	X		X			X		
	Sidewalk Repair	X		X						
	Controlling Litter	X		X		X	X			X
Fountains, Pools, Lakes, and Lagoons Maintenance	Fountain and Pool Draining		X					X		
	Lake and Lagoon Maintenance	X	X	X		X			X	X
Landscape Maintenance	Mowing/Trimming/Planting	X	X	X		X			X	X
	Fertilizer & Pesticide Management	X	X						X	
	Managing Landscape Wastes			X					X	X
	Erosion Control	X	X							
Drainage System Operation and Maintenance	Inspection and Cleaning of Stormwater Conveyance Structures	X	X	X		X		X		X
	Controlling Illicit Connections and Discharges	X	X	X	X	X	X	X	X	X
	Controlling Illegal Dumping	X	X	X	X	X	X	X	X	X
	Maintenance of Inlet and Outlet Structures	X		X	X		X			X
Waste Handling and Disposal	Solid Waste Collection		X	X	X	X	X	X		X
	Waste Reduction and Recycling			X	X					X
	Household Hazardous Waste Collection			X	X		X	X	X	
	Controlling Litter			X	X	X		X		X
	Controlling Illegal Dumping	X		X		X	X		X	X
Water and Sewer Utility Operation and Maintenance	Water Line Maintenance	X				X	X			
	Sanitary Sewer Maintenance	X				X	X			X
	Spill/Leak/Overflow Control, Response, and Containment	X	X			X		X		X

Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>)

3.5 Activities

Activities are actions that the City will undertake to achieve its goals. Many activities are BMPs. For a complete listing of all BMPs, please refer to Table 1.2. Table 1.2 contains a complete description of all BMPs, their associated measurable goal and implementation timeline.

A. Education

Education is the foundation of each of the City's programmatic elements. Educational efforts begin with linking maintenance activities with watershed management and water quality goals contained with the City's Permit.

The focus of education during this permit term will be initiation of an annual training and education program geared to municipal maintenance staff. Annually experts on water quality and BMPs from the National Marine Sanctuary, Watershed Institute and other organizations will be invited to speak to Maintenance staff members about local and regional water quality issues and management practices. Maintenance Services Department staff members will present a summary of watershed issues and train staff on BMPs. Annual training and implementation of BMPs will be incorporated into each maintenance division's annual work program and budgetary request. Division managers will work with crew supervisors and others to prepare and conduct annual training. Accomplishments will be summarized in the Annual Reports. Training sessions will be revised, as needed, each year based upon local issues, past program success and staff needs. Changes to the training will be documented in the City's Annual Proposed Work Programs. See Section 3.2 and Table 1.2 for more information regarding training activities.

Training will be tailored each succeeding year (after Year 1 of Permit term) to build upon prior year's knowledge. Pre- and post-test results will be used to determine information that needs to be reinforced.

B. Facility Maintenance

Facility maintenance is an integral part of the City's urban runoff and watershed protection efforts. Poorly maintained facilities add pollutants to downstream water bodies. Sanitary sewer overflows are a particular concern. Sanitary sewer overflows can occur when sewer collection lines designed to only conduct sanitary sewage become conduits for stormwater. These sewer lines either back up and discharge from manholes or other outlets or backup into homes, or through specially designed diversion structures intended to limit the amount of flow. Excessive intrusions into the sewer system result in sanitary sewer overflows.

Inflows and infiltration into the sanitary sewer system are the two principle sources of overflows. Inflows can come from design defects, such as locating manholes or other features below grade where they serve as conduits for stormwater. Gaps or breaks in the collection system are another potential source. These breaks can admit stream flow from residences. Infiltration can come from the portion of the sewer line on private property (laterals) and collector pipes. Under the Clean Water Act, sanitary sewer overflows are unlawful discharges for which a permit cannot be obtained.

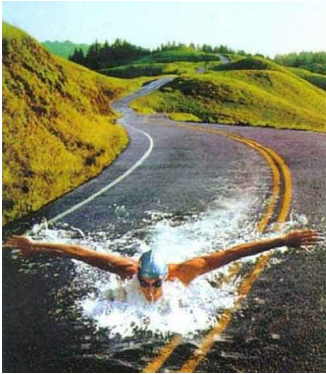
In the City, sanitary sewer systems are a responsibility of the City, property owners and the Monterey Regional Water Pollution Control Agency (MRWPCA). The City is responsible for the sanitary sewer lines, and the MRWPCA is responsible for wastewater treatment. Homeowners are responsible for maintaining their house laterals. City wastewater crews maintain the City's sanitary sewer main lines, as well as the City's storm drain system. Homeowners seldom maintained their lateral lines and as a consequence these lines deteriorate. Typically, they are not replaced until a serious failure. City outreach efforts with the residential community described in Table 1.2 and Element 6 will provide homeowners with information to avoid lateral line collapses. See Table 1.2 for program details.

The City of Salinas has not had a history of significant sanitary sewer overflows. Preventative maintenance may be one reason for the safe record. Since 1998, Salinas has spent over \$31 million in improving its sewer system. The City's sanitary sewer and storm drain maintenance program has proven effective in limiting overflows. Program success is, in part, also due to a well-trained responsive wastewater maintenance team. Beginning in 2005, the City will expand its efforts and initiate a more comprehensive management approach to maintaining its sanitary and storm drain systems.

Further, by the end of the second year of the Permit, maintenance staff will develop a comprehensive inventory keyed to a map to manage its stormwater sanitary sewer system (MS4). Ad-hoc mapping has been part of past municipal practices, but these have not been integrated into a management practice. The new method will help systematize maintenance. The City will inventory and map all municipal inlets and outfalls that discharge into creeks and other receiving water bodies. Inventories of these facilities will include: 1) types of facilities, 2) maintenance requirements, and 3) maintenance schedules. Together, this information will serve as a management tool to ensure maintenance is performed on a time-schedule basis. As part of this effort, City will investigate use of geo-spatial databases. Geographical Information Systems (GIS) is an ideal technology to meet this need. Use of GIS's would enhance maintenance operations by providing more accurate information at the ready and would enable staff members to track conditions visually and systematically. It would also provide a means to share data between departments. Further, the City will develop Stormwater Pollution Prevention Plans (SWPPPs) for all of its facilities. SWPPPs are contained in Appendix F-1 of this Plan. To ensure compliance with SWPPPs, City staff members will conduct annual inspection of facilities beginning by the end of 2006, results will be noted and a follow-up record kept.

The City will also refine mapping of its sanitary and stormwater systems. Location of municipal inlets and outfalls will be more precisely located and comprehensive than in past years. Inlet locations that heretofore have not been mapped because they were buried beneath overgrowth vegetation, or otherwise difficult to locate or unknown will be included into one comprehensive map. The first step will be a manually developed map keyed to a maintenance schedule. The collection system of pipes previously mapped as part of the City's *2004 Storm Water Master Plan* will be integrated into maintenance department activities. Maintenance staff will use schedules and maps to conduct regular systematic maintenance of inlets to ensure that they are unobstructed and allow drainage of surface flows. Work on this effort will be completed in 2007. See Table 1.2.

C. Street Maintenance



The City maintains approximately 270 centerline miles of streets. This includes a total of 24 major arterial miles, 23.5 miles of minor arterials and 222.5 miles of residential streets. Several roads and streets within municipal boundaries are state roads and are under the jurisdiction of the California State Department of Transportation (Caltrans). State roads include: State Route 68A, South Main Street between John Street and Blanco Road, State Route 68B--John Street from South Main Street to Wood Street, State Route 183--Market Street between Monterey Street and Davis Road, and N. Main Street from Market Street to U.S. 101.

Whether owned by the City or Caltrans, activities occurring on roads and streets affect water quality. This includes car and truck vehicle use, minor and major street repairs, repaving activities and debris carried from adjacent properties. Constituents of concern include heavy metals from brake linings; oil and grease from leaking vehicles; herbicides and pesticides from vegetation and animal control; paints and solvents from pavement painting and spills; battery acid; anti-freeze from leaking radiators and other spills from vehicles. This could include petroleum products as well as litter and vegetation from construction and earth-moving activities. Since roads are impervious, pollutants discharged onto them have the potential to collect and concentrate until runoff from a rain event conveys contaminants directly into nearby creeks or other receiving waters. Roads within 300 feet of an open waterway are shown on Figure 3-1 and listed on Table 3.1.b.

To protect downstream waterways, the City employs the following BMPs:

- 1) visual inspection,
- 2) Regular street sweeping,
- 3) Annual storm drain inspection and cleaning,
- 4) Maintenance during dry weather, and
- 5) A trained spill clean-up response team.

Throughout the year, Street Division personnel perform a visual inspection of roads, streets and highways to assess roadway conditions. In addition, street sweeping crews note roadway conditions and report potential issues to street division personnel. The City also maintains a hotline for residents to call in concerns. The Street Division Manager records this information in a database. This database is used to develop work programs and modify maintenance schedules. Roadway maintenance is performed consistent with BMPs SC-70 and NS-3 (Appendix B-1). See Section 3.2 Measurable Goals and Table 3.7 for a more complete discussion.

In addition to the semi-independent work that the Streets Division performs on street maintenance, all Maintenance Services Department division managers (facilities/fleet, parks, wastewater, and streets) will meet monthly to review potential issues that might affect more than one division and establish management plans. This includes development of training programs.

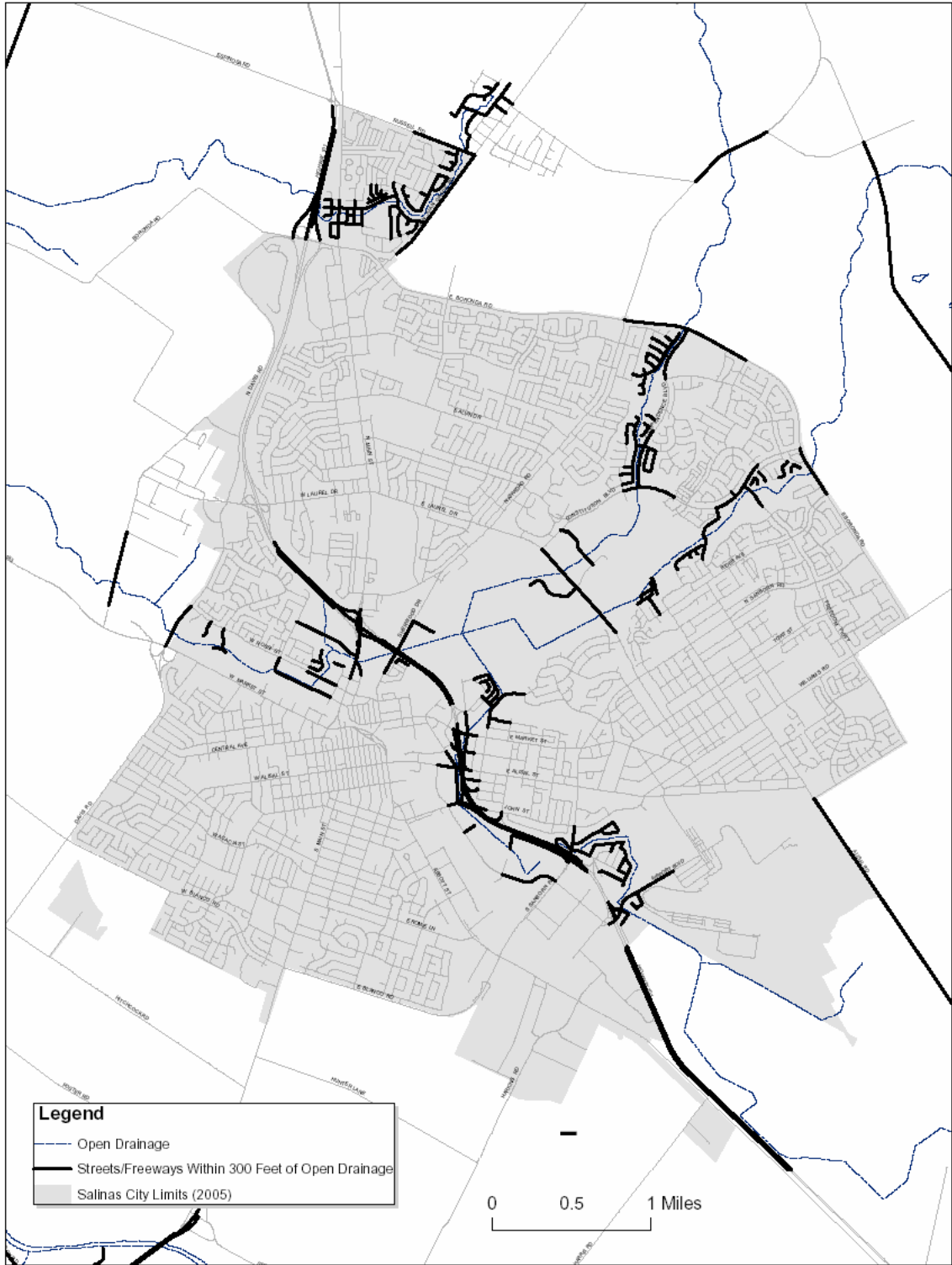
Roadways that carry high volume traffic, heavy truck traffic or drain to sensitive areas, such as 303(d) listed waterways are a concern. As shown in Figure 3-1, many City

roadways and Caltrans owned streets are proximate to open drains. These roadways have also been identified as a high priority. Roadways within 200 feet of a 303(d) listed waterway or sensitive area are listed in Table 3.1b that follows. A comprehensive list of all roads within the City is contained within a separate stormwater inventory document.

Roadways listed in Table 3.3 have also been designated as a possible risk to downstream waterways due to their location in the City's industrial section and high truck traffic.

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Figure 3-1 Streets and Freeways Within 300 Feet of Open Drainage



Stormwater Management Plan

**Table 3.1b
Streets Within
300 Feet of
Open Drainage**

AIRPORT BLVD	FAIRVIEW AVE	HIGHWAY 68	TICINO CIR
ALISAL RD	FIELDGATE DR	N U.S. HIGHWAY 101	VAN BUREN AVE
ALP CIR	FLORENCE PL	NATIVIDAD RD	VERMONT CIR
APACHE ST	FOOTHILL DR	NEW HAMPSHIRE CT	VICTOR ST
ARMSTRONG RD	FREEDOM PKY	NEWPORT CT	VICTOR WAY
ASCONA WAY	FRESA PL	NORTHRIDGE DR	W BOLIVAR ST
BARBARA PL	GARNER AVE	OLD STAGE RD	W LAKE ST
BELLINZONA AVE	GREENBRIAR WAY	PAUL AVE	W LAMAR ST
BEVERLY DR	GRIFFIN ST	PEACEFUL COVE WAY	W ROSSI ST
BORONDA RD	HARRYETTE DR	PEREZ ST	WENTWORTH CIR
BRIDGE ST	HARTFORD ST	PORTOLA DR	WORK CIR
BRUTUS ST	HARTNELL RD	PORTSMOUTH WAY	WORK ST
CAPE COD WAY	HEBERT RD	PRESTON ST	ZABALA RD
CAROL DR	HIDDEN CREEK CIR	PROVINCETOWN DR	
CASENTINI ST	HIGHWAY 183	QUAIL RUN CIR	
CASTLETON ST	HILLTOWN DR	RANCH VIEW LN	
CASTRO ST	HOLLY ST	RANCHERO DR	
CLEVELAND AVE	HOOVER ST	RESERVATION RD	
CONSTITUTION BLVD	HYANNIS CIR	RHODE ISLAND CIR	
COOPER RD	INDEPENDENCE BLVD	RHODE ISLAND ST	
CORNWALL ST	INGLEWOOD ST	RICO ST	
CORNWALL ST	JACKSON ST	RIVERTON WAY	
COVENTRY ST	JEAN AVE	RODGERS RD	
CRAZY HORSE RD	JOHN ST	ROGGE RD	
CREEKBRIDGE CIR	KERN ST	ROOSEVELT ST	
CREEKSIDE TER	LAS CASITAS DR	ROUNDTREE DR	
DANBURY ST	LENNY ST	S DAVIS RD	
DE LA TORRE	LEXINGTON DR	S FREEWAY OFF RAMP	
DENNER RD	LITTLE RIVER DR	S MONTEREY SALINAS	
E ALISAL ST	LOHMAN ST	HIGHWAY 68	
E BOLIVAR ST	LONDONDERRY WAY	S SANBORN RD	
E BORONDA RD	LOUISE CT	S U.S. HIGHWAY 101	
E LAMAR ST	MASSA ST	SAN BENITO ST	
E LAUREL DR	MASSACHUSETTS CIR	SAN JON RD	
E MARKET ST	MAYFAIR DR	SAN JUAN GRADE RD	
EBANO PL	MCFADDEN RD	SANTA RITA ST	
EISENHOWER CIR	MERCED ST	SEMINOLE DR	
ELVEE DR	MILL WAY	SHERWOOD DR	
ENGLAND AVE	MOFFETT ST	SOTO PL	
ESPINOZA RD	N DAVIS RD	SOUZA WAY	
	N FREEWAY ON RAMP	STARLIGHT LN	
	N HIGHWAY 68	STONY BROOK DR	
	N HIGHWAY OFF RAMP	SUCRE CT	
	N MADEIRA AVE	SUNVIEW DR	
	N MADEIRA AVE	SWANER AVE	
	N MAIN ST	TAFT CIR	
	N MONTEREY SALINAS	TERRACE ST	

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Table 3.2
Roadways within 200 Feet of a 303(d) listed waterway

Street Name <u>(by water body)</u>	Daily Traffic Volume <u>(Trips per day)</u>	Orientation <u>(To Creek)</u>
GABILAN CREEK		
LAUREL DR	24,662	Perpendicular
INDEPENDENCE DR	9,721	Parallel
BORONDA RD	18,080	Perpendicular
CONSTITUTION	22,101	Perpendicular
NATIVIDAD CREEK		
RIDER AVE	7522	Parallel
FREEDOM PARKWAY	9,012	Perpendicular
BORONDA RD	18,080	Perpendicular
REC DITCH		
W. MARKET	24,984	Parallel
SHERWOOD DR	24,977	Perpendicular
N. MAIN	33,346	Perpendicular
ROSSI ST	23,881	PAR/PER
SANTA RITA CREEK		
RUSSEL RD	8,492	Perpendicular
SAN JUAN GD	10,072	Parallel
N. MAIN	7,547	Perpendicular
BORONDA	45,096	Parallel

Table 3.3
Streets Carrying High Truck Traffic

Street Name	Daily Traffic Volume
Abbott Street (Between John St. and City Limit)	27,129
Sanborn Road (Between John Street and Abbott Street)	28,850
John Street (Between Work Street and Sanborn Road)	26,755
Work Street (Between John and Sanborn Road)	11,427
Airport Blvd. (Between Hansen Road and Del La Torre	19,534

While all roads have been designated as a high priority, roads that carry heavy truck traffic, or roads that drain into open waterways or sensitive areas as shown in Tables 3.1 to 3.3 above will receive the City's focus over the 5-year permit term.

In addition to roads, other paved areas also contribute to downstream water contaminants. The 20 public parking facilities (some as adjunct to other facilities) located throughout the City pose a concern if not managed adequately. Potential pollutants of concern include: heavy metals, petroleum products, battery acid and anti-freeze, and

herbicides and/or pesticides. To reduce these potential impacts to the MEP, the City employs the following BMPs at its parking lots: (1) seasonal visual inspections, (2) weekly sweeping, (3) annual storm drain cleaning, and (4) routine maintenance during dry weather. Additional steps are performed based upon need, such as spill clean-ups. When performing repairs to parking lots, the City employs BMP SC-43. Table 3.4 lists City owned and maintained parking facilities. See Table 3.7 for more details.

Table 3.4
Municipal Parking Lots

LOT NO	LOT SIZE (Sq. Ft.)	LOCATION
1	18,760	219 Salinas St
2	26,520	345 Salinas St
3	38,240	222 Monterey St
5	54,000	300 Monterey St
6	40,470	101 W. Alisal St
8	26,892	204 Salinas St
10	6,574	128 Salinas St
11	5,400	106 Salinas St
12	26,532	112 Lincoln Ave
13	16,900	111 Salinas St
14	28,210	138 Monterey St
15	3,162	321 Church St
16	6,630	30 Lincoln Ave
17	12,411	101 W. Alisal St
Salinas St. Garage	104,145	320 Salinas St
Monterey St. Garage	143,884	20 E Monterey St ¹
Airport	27,405	30 Mortenson Ave
Steinbeck Library	14,325	350 Lincoln Ave
C. Chavez Library	25,612	615 Williams Rd
Gabilan Library	7,800	1400 N. Main St
City Corporation Yard	115,722	426 Work St ¹
City Animal Shelter	6,708	144 Hitchcock Rd
Train Station	53,417	26 Station Pl

¹ Parking garages with an oil grease separator built into the storm drain system.

D. Park Maintenance

The City of Salinas has 47 sites designated as park facilities. This element includes a summary inventory of all City park facilities and the Best Management Practices employed at each site (Table 3.5). A full description of each individual park site and the associated BMPs employed are contained in Appendix F-1. All parks share certain characteristics that generate or have the potential to generate pollutants that affect environmentally sensitive bodies of water. Rainfall runoff, irrigation surface drainage, or

debris and sediment flow from activities at City park sites discharge into storm water systems that flow into one of five waterways:

1. Alisal Creek (becomes Reclamation Ditch 1665)
2. Gabilan Creek
3. Natividad Creek
4. Salinas Reclamation Ditch
5. Santa Rita Creek (also known as Little Bear Creek)

These five waterways flow on through several sloughs including the Tembladero, Alisal, and Espinosa, before they enter the Monterey Bay at the Salinas Lagoon, Moss Landing Harbor, and Elkhorn Slough.

Potential pollutants to these watersheds include trash and pesticides and fertilizers. Trash including garbage, litter, plastics and trash from general park misuse, offsite activities, and picnics and barbeques is also a potential source of pollutants. Pesticides are used to control landscape pests, including gophers, ground squirrels, weeds, and insects and prevent risks to public health and safety associated with such pests. Fertilizers are used to ensure the health and viability of turf and landscape materials, many of which provide buffers and filters to reduce runoff pollutants and to control erosion. Budget shortfalls over the past several years have resulted in substantial reductions to Parks Division budgets. These cutbacks have diminished the number of staff and the availability of supplies needed to maintain parks. One such affect is a reduction in chemical usage. Less use of fertilizers and herbicides has reduced the potential for downstream pollution.

Park maintenance staff members remove litter and empty garbage cans daily, including weekends and holidays. The City provides garbage cans at all picnic and barbeque sites, playgrounds, parking areas, and various other accessible areas to prevent littering. However, park litter remains a prime concern. Peak use days can generate vast quantities of litter not always deposited into trash receptacles.

I. Pesticide Management:

Integrated Pest Management (IPM) is an approach to pest control that seeks to limit use of harmful chemicals. IPM has been proven as a means to protect water resource ecosystems through integrated practices. Reduced use of potentially harmful chemicals is now common practice at municipal parks, as the City has moved away from extensive use of chemicals to manage pests. In fact, IPM is now the City's approach to landscape management; the City has moved toward elimination of the use of pesticides through IPM practices. Use of pre-emergent herbicides to control weeds is now replaced by use of more environmentally friendly practices such as increased hand-weeding; use of rodenticides have been replaced by the use of traps whenever possible. Pesticides are applied when there are no viable alternatives. When chemicals are applied, the City follows labels and manufacturer safety data sheet (MSDS) requirements to ensure safety. In addition, pesticides are kept from entering and negatively impacting stormwater drainage systems.

The City of Salinas will not discharge pollutants from the MS4 in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in §

13050 of the California Water Code) in waters of the State of California. All pesticide applications are made in accordance with federal, state and local laws. This includes the application, storage and disposal of pesticide materials. Salinas' pesticide applications are monitored and audited by the Monterey County Agricultural Commissioner's Office.

Staff members who receive annual pesticide training are the only staff authorized to apply chemicals. Training topics include safe application methods, worker safety, BMPs, spill mitigation and clean-up techniques, medical facilities, storm water protection, and a review of integrated pesticide management practices and alternatives. At the conclusion of annual pesticide training, each trainee will verify they have received, understood, and will abide by the training they have received for the application of all pesticides. Throughout the year, the Qualified Applicators and Pest Control Advisors all receive an additional minimum of ten- to twenty-hours of pest control training at seminars, primarily sponsored by the Pesticide Applicators Professional Association, the California Association of Pest Control Advisors, or the International Society of Arboriculture. These include training in IPM techniques.

All applications are made at the direction of a Qualified Applicator or advisor at the Crew Supervision level or higher. This staff member is also responsible for checking the effectiveness of the application, training, and keeping of records of the applications.

Pesticides applied are primarily herbicides to control weed growth in areas of public use. Pesticides are applied only in areas where actual need exists and not simply to apply the materials on a regular preventative schedule. Copper based pesticides and most toxic forms of restricted pesticides (Class 1) have effectively been eliminated from the application process. These materials would only be utilized if a serious public health and safety condition exists that cannot be reasonably mitigated through other less toxic means.

City has confined its use of pesticides in 2006 to: Round-up (Monsanto), Aqua Master (Monsanto), and Surflan (Dow-Agra Sciences). Injection products for trees include Marathon, and Merit. In 2005, other pesticides used include Karmex and Wilco Gopher Getter. No pesticides will be applied when winds exceed 7-miles-per-hour, or when it is raining, or rain is projected within 24-hours. The Pesticide Application Record required of all applicators documents weather condition and wind speed at the time of application. Irrigation will be limited to areas that have not recently had applications of any pesticide or fertilizer that has pollution run-off potential. Irrigation systems will be operated in accordance with planning between the applicator and person responsible for maintenance of the site.

Weed abatement practices will not rely exclusively on pesticide application. Viable mechanical methods also include flail-mowing, weed-eating and hand-hoeing. No potential for runoff will be created by the removal of vegetation on slopes when rains are expected before erosion control methods are put in place. Salinas has developed a significant reliance on mulch products (chips) to smother weeds. Chips produced with the removal of woody materials in the Urban Forestry Division are commonly employed.

Staff has been trained to schedule weed abatement before seeds set, whenever possible, to avoid the need for a more intense abatement method that may include both mechanical and pesticide application methods. Training for Pesticide Applicators and

Advisors include selecting plant materials that require less maintenance, such as use of chemicals. This includes choosing more plant groundcovers and aggressively growing herbaceous shrubs for faster soil coverage and less exposure time of bare soil, a condition that often results in weed establishment.

For public health and safety reasons, vertebrate pest control is done only on an as-needed basis. Application methods to control rodents are made in accordance with applicable laws. Grains and bait blocks are positioned in the ground or in covered bait stations away from storm drains.

Routine overhead aerial applications of dormant oils, and summer oils have been reduced 25% over the past five-years. Staff is committed to a decrease of an additional 25% over the term of this Permit. To accomplish this reduction, staff will plant trees that are less prone to mass infestations of insects that might otherwise be required of other species. Applications will be made only to tree varieties that are actually experiencing mass infestations and these infestations cannot be controlled by means other than the application of oils. All storm drains in areas of the applications will be covered to protect the quality of the storm water. Foliar applications of all other insecticides to street trees have been eliminated in preference of injector products that produce no runoff potential.

All mixing and loading of materials in preparation for pesticide applications will be done in areas that have no potential for run-off to a nearby storm drain. City staff will not apply pesticides in the Gabilan Creek Wilderness or other wetland and creek area, unless a serious public health and safety concern exists for which no other remedy is feasible. Should this occur, only pesticides that are approved by the EPA for use in water bodies will be used to mitigate the immediate problem.

Tanks will be emptied of all pesticides through the application process. Rinse water will also be used for the application process and will not be allowed to flow to any storm drain facility or water body. All application equipment is calibrated for effective spraying and to eliminate overspray to areas outside of the application target. Pesticide containers are rinsed in accordance with applicable laws and are disposed monthly at a certified facility (the Marina Landfill), or as volumes of containers require. These containers are then registered with the Monterey County Agricultural Commissioner's Office, counted and chipped for use as recycled products.

Fertilizers are applied on an ad-hoc and as needed basis to ensure plant health and are immediately watered in order to prevent burning of the target plants and the possibility of movement off the target. Fertilizers that remain on hardscape areas are swept up or blown onto target areas to prevent runoff carrying them to storm drains.

The following additional measures will be implemented to prevent potential fertilizer or pesticide contamination of storm drain systems. When applying broadcast fertilizers to turf or landscape areas that contain storm drains, staff will cover the drains to prevent materials from entering the system directly, and when applying pesticides those drains will be clearly marked to prevent spray from entering into drains. Further, the City will expand its IPM program with principals identified within the Pesticide Hazard and Exposure Reduction (PHAER) Zone concept. PHAER is a management concept that seeks to eliminate application of pesticides from zones that are not environmentally sensitive. One of its goals is to ensure the public's safety. Resource limitations will limit

the City's ability to implement all of the concepts contained within PHAER. Nonetheless, landscape pest management using a zone principle is another tool that the City will employ to reduce environmental risk. In the second year of the permit term, City staff will be trained on PHAER principles, and 20-percent of maintenance crews will attend an all-day IMP training session. Crew supervisors will be responsible for training and ensuring that IPM /PHAER and other management practices are implemented in day-to-day maintenance activities. Annually, crew supervisors will conduct training sessions in conjunction with the Water Resources staff.

II. Oil /Grease/Metals and Sediment Management:

Oil, grease, metals, and sediments are usually generated from two areas within the City's parks: parking lots and hardscape areas. Both receive windblown or water-carried materials from buildings, vehicles, landscapes, sports fields, or offsite areas. These can include sediments, dust, landscape soils, playground sand, and baseball field materials (clay/cinder), as well as, oils, greases, metals, and other fluids from vehicles.

The majority of the park hardscape surfaces drain to landscape beds, turf, or playgrounds, where the runoff percolates through the plant material, mulch, and soil to filter pollutants before reaching groundwater. Some parks have storm drains in turf or landscape areas. Runoff to these drains is from clean irrigation or rainwater that the turf filters, preventing pollutants from entering the storm water system.

Park staff clean hardscape surfaces including paths and sidewalks, barbeque and picnic pads, and building foundation pads with brooms, blowers, rakes, and shovels, to remove the materials and provide clean, safe surfaces. Staff also picks up garbage and landscape debris, and cleans obvious spills or vehicle parts in parking lots and drives. When runoff from cleaning operations cannot be directed to permeable surfaces and flows into storm drains, those drains will be covered or surrounded with filtration media. This cleaning combined with the drainage of most areas to permeable surfaces minimizes or eliminates the potential pollutants to the storm water system in most facilities; however, budget and manpower reductions, and lack of large sweeping equipment restrict the City's ability to thoroughly and frequently clean parking lots.

Parking lots will be swept monthly to ensure that trash and pollutants are minimized and controlled. Three options for meeting this commitment are scheduling under current municipal street division operations with their equipment and manpower, training of park personnel in sweeper use and scheduling of sweeping when equipment is available or contracting sweeping services.

Staff will also provide filtration barriers or covers for any drains that receive runoff from surface cleaning in City facilities such as the Sherwood Tennis Center. This practice will also be employed for picnic and barbeque areas that generate cooking oils, grease, and ashes that stain tables and concrete pads. Park personnel wash these areas with water pressure and/or baking soda or citrus degreasers to remove heavy deposits. The runoff is directed to turf areas for filtration. Ashes are cooled and disposed of with other garbage.

III. Biological and oxygen demanding substances:

These substances result from landscape maintenance and normal plant activity including leaf drop, as well as animal or human waste products.

Landscape materials include lawn clippings from mowing, leaves, bark, and fruit from normal plant lifecycles, and plant material from maintenance activities such as pruning, edging, trimming, or removal. Lawn clippings are left on the turf to recycle and provide soil nutrients. Landscape debris from maintenance activities is recycled as mulch when possible, disposed of through recycle waste disposal programs when available, or collected and removed through normal waste disposal operations. These methods prevent landscape materials from having a negative affect on runoff from park facilities.

Animal waste present in park areas is minimal due to enforcement of City policies prohibiting the presence of animals in the park. The only exceptions to this policy are the two dog walk areas at Rossi-Rico Park and Natividad Creek Park. Both facilities have dog-waste disposal systems that have been effective in controlling the problem. Animal feces in other parks are removed when observed. Remaining waste materials are usually in turf or landscape areas and remain on the site to decompose and filter through the soil. The only other area of concern for animal wastes is the Sherwood parking lot used annually by the Rodeo Association as a living area for rodeo participants and their animals for the duration of the event. Horse and pet waste products are present on the asphalt surfaces until the post event cleanup and could enter storm drains in the parking lot. Additional precautions will be taken during future events to prevent this, for example by placing filtration media at all parking lot storm drains during the event.

In summary, the majority of rain or irrigation water that enters park facilities remains on the site to percolate into the ground, or, is filtered by turf and landscape material before leaving the site. Most of the remaining runoff flows on regularly cleaned surfaces and presents no threat of pollution to off site systems.

Park division staff are trained regularly in facility and landscape maintenance to ensure best efforts are implemented with available resources and manpower to provide safe, clean, and well maintained park facilities for public use. While training on landscape management has been sufficient, expanded educational efforts discussed elsewhere in this section are needed. Park's division staff will be educated regarding the Clean Water Act, NPDES program goals, and linkages between park maintenance and BMPs necessary for success. Training and performance will be incorporated into personnel performance evaluations.

E. Inventory of City Facilities and Associated BMPs

Non-park municipal facilities are inventoried in Table 3.6. Table 3.6 also lists BMPs that are being employed at each facility. Summary discussions of each site (SWPPPs) are included in Appendix F, while detailed summaries of each BMP are included in Appendix B. SWPPPs include an inventory of facilities, including streets and a description of facility location, size and amenities. Activities that could affect downstream water quality are summarized, as are pollutants of concern. Management practices (BMPs) to mitigate these potential concerns are also discussed.

F. Program Effectiveness

Measurement of program effectiveness is dependent upon the BMP selected. BMPs and their associated measures of effectiveness are summarized in Table 3.7. In brief, program effectiveness is an assessment of how well each BMP performed against an established benchmark.

3 Municipal Maintenance

Table 3.5 Municipal Facilities Best Management Practices														
ID No.	Name	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP	BMP
		SC-10	SC-11	SC-34	SC-41	SC-43	SC-60	SC-70	SC-71	SC-73	SC-74	SC-75	SC-76	
M001	Acacia Corners	X		X	X				X	X				
M002	Bataan Memorial Park	X		X	X				X	X		X		
M003	Breadbox Recreation Center	X	X	X	X	X			X	X				
M004	Carmel Corner	X		X	X				X	X				
M005	Central Park	X		X	X		X		X	X		X		
M006	Cesar Chavez Community Park	X		X	X				X	X		X		
M007	Claremont Manor Park	X		X	X	X			X	X		X		
M008	Clay Street Park	X		X	X				X	X				
M009	Closter Community Park	X		X	X	X			X	X		X		
M010	Constitution Soccer Complex	X	X	X	X	X	X	X	X	X	X	X	X	
M011	Cornell Corner	X		X						X				
M012	Creekbridge Neighborhood Park	X	X	X	X				X	X		X		
M013	East Laurel Pocket Park	X		X	X				X	X		X		
M014	El Dorado Community Park	X		X	X				X	X		X		
M015	El Gabilan Library	X	X	X	X	X	X		X	X		X		
M016A	Exposition Park / PGE Site													
M016B	Exposition Park / PGE Site	X	X	X	X	X	X	X	X	X	X	X	X	
M017	Frank Paul Park	X		X	X	X			X	X		X		
M018	Fremont School Softball Field	X		X	X	X			X	X		X		
M019	Gabilan Play Lot	X		X	X				X	X		X		
M020	Greenbriar Open Space	X		X	X				X	X		X		
M021	Harden Ranch Neighborhood Park	X		X	X				X	X		X		
M022	Hebbron Heights Community Center	X		X	X	X			X	X		X		
M023	Jaycee Tot Lot	X	X	X	X				X	X		X		
M024	La Paz Neighborhood Park	X		X	X				X	X		X		

Table 3.5 Municipal Facilities Best Management Practices (Continued)

ID No.	Name	BMP SC-10	BMP SC-11	BMP SC-34	BMP SC-41	BMP SC-43	BMP SC-60	BMP SC-70	BMP SC-71	BMP SC-73	BMP SC-74	BMP SC-75	BMP SC-76
M025	Laurel Neighborhood Park	X		X	X		X		X	X		X	
M026	Laurel Heights Neighborhood Park	X		X	X				X	X		X	
M027	Laurelwood Neighborhood Park	X		X	X				X	X		X	
M028	Los Padres Neighborhood Park	X		X	X				X	X		X	
M029	Maple Play Tot Park	X		X	X				X	X		X	
M030	McKinnon Neighborhood Park	X	X	X	X	X		X	X	X	X	X	X
M031	Mission Neighborhood Park	X		X	X				X	X		X	
M032	Myrtle Court Play Tot	X		X	X				X	X		X	
M033A	Natividad Creek Park (North)	X	X	X	X	X	X		X	X		X	
M033B	Natividad Creek (South)	X	X	X	X	X	X		X	X		X	
M034	Natividad Neighborhood Park	X		X	X	X			X	X		X	
M035	Northgate Tot Lot	X		X	X				X	X		X	
M036	Northgate Neighborhood Park	X		X	X	X			X	X		X	
M037	Rossi Rico Linear Parkway	X		X	X	X			X	X		X	
M038	Municipal Stadium Sports Complex	X	X	X	X	X	X		X	X		X	
M039	Santa Lucia Tot Lot	X		X	X				X	X		X	
M040	Santa Rita Neighborhood Park	X	X	X	X	X			X	X		X	
M041	Sherwood Community Park	X		X	X	X	X		X	X		X	
M042	Soberanes Neighborhood Park	X		X	X				X	X	X	X	
M043	Soto Square Tot Lot	X		X	X				X	X		X	
M044	Steinbeck Neighborhood Park	X		X	X				X	X		X	
M045	Veteran's Memorial Park	X		X	X		X		X	X		X	
M046	Williams Ranch Neighborhood Park	X		X	X	X			X	X		X	
M047	Woodside Neighborhood Park	X		X	X				X	X		X	
M048	Salinas Fairways Golf Course	X	X	X	X	X	X		X	X		X	

Table 3.6 Municipal Facilities Best Management Practices														
ID No.	Name	BMP SC-10	BMP SC-11	BMP SC-21	BMP SC-22	BMP SC-31	BMP SC-34	BMP SC-41	BMP SC-60	BMP SC-74	BMP SC-76	BMP SE-3	BMP SE-7	BMP SE-10
M049	City Hall and Employee Parking Lot							X						
M050	Salinas Maintenance Services Yard	X	X	X	X	X	X	X	X	X		X	X	
M051	Steinbeck Library							X		X				
M052	El Gabilan Library							X		X				
M053	Cesar Chavez Library							X		X				
M054	Salinas Recreation Center							X	X	X				
M055	Salinas Street Parking Garage	X	X											
M056	Women's Club Building													
M057	Salinas Sunrise House							X		X				
M058	Salinas Train Station	X						X						
M059	Salinas Old Fire Station (non-operational)						X		X	X				
M060	Salinas Fire Station #1		X		X		X		X					X
M061	Salinas Fire Station #2		X				X		X					X
M062	Salinas "Firehouse" Recreation Center							X						
M063	Fire Station #4		X				X		X					X
M064	Fire Station #5		X				X		X					X
M065	Fire Station #6		X				X		X					X
M066	Permit Center	X						X						
M067	Industrial Wastewater Treatment Facility	X	X			X			X					
M068	Sanitary Sewer Collection System	X	X							X	X			
M069	Salinas Animal Shelter	X					X	X	X					

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III.b. Develop Standards Plan (DSP) .	<p><u>3.1 Adopt standard engineering pre-caste design detail.</u></p> <p>Reduce/prevent non-stormwater discharges to downstream receiving waters from municipal facilities.</p> <p>Reduce illegal dumping/connections at municipal locations; increase public awareness.</p>	<p>Adopt “No dumping-- flows to bay” standard engineering pre-caste design detail for all new storm drain curb inlets.</p> <p><u>Note: See Element 6: Public Education and Outreach for the BMP implementation plan re: stenciling existing inlets.</u></p>	3	<p>Include in <u>Stormwater Development Standards (formerly called DSP)</u>; <u>DSP</u>; track adoption of <u>Stormwater Development Standards DSP</u> and include <u>results</u> in Annual Report</p> <p><u>Implementers:</u> Director of Maintenance Services and City Engineer</p>	3-30
V.a.i-iv. Develop inventory and map of all inlets to MS4.	<p><u>3.2 Update inventory and mapping of municipal inlets and outfalls.</u></p> <p>Municipal Maintenance: Inventory and map of MS4.</p> <p>Document information about the MS4 to foster a responsive, pro-active and efficient maintenance operation.</p>	<p>Update inventory and mapping of municipal inlets and outfalls and associated maintenance schedules.</p> <p><u>Wastewater Division staff will physically inventory >3,000 inlets and locate them on a map. City Information Systems staff member will upgrade inventory of inlets and outfalls using digitized technology as a</u></p>	2	<p>Complete inventory and mapping of 100% of municipal storm drain inlets and storm drain outfalls <u>by December 2006</u>. Record</p>	3-16

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		<u>first step towards full GIS applications.</u>		<p>maintenance requirements and maintenance schedules.</p> <p><u>All inlets will be inspected, cleaned and maintained once per year. Note: For maintenance see: BMP 3.5.</u></p> <p>Complete and submit <u>inventory</u> to RWQCB by February 2007.</p> <p><u>Digitize mapping of inlet and outfall locations: complete by June, 2007.</u></p> <p><u>Implementers:</u> City Maintenance Services Department, Wastewater Division, <u>and Information System Division</u></p>	

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.a.i-iv. Develop inventory and map of all inlets to MS4.	<p><u>3.3 Maintain MS4 stormwater system.</u></p> <p>Conduct maintenance consistent with Municipal Maintenance: Inventory and Map <u>Plan</u> (see above).</p>	<p><u>Conduct maintenance of inlets and outfalls consistent with Inventory and Mapping Plan.</u></p> <p>Document information about the MS4 to foster a responsive, pro-active and efficient maintenance operation.</p>	3, 4, 5	<p>Annually report maintenance activities by 9/1 to Director and in Annual Report.</p> <p><u>Implementers:</u> City Maintenance Services Department, Wastewater Division</p>	3-16
V.b.i Properly operate and maintain storm drain system.	<p><u>3.4 Inspect field locations where trash, illegal dumping and other pollutants of concern have been shown to be a recurring problem.</u></p> <p>Field: reduce/prevent non-stormwater discharges to municipal facilities.</p> <p>Reduce illegal dumping/connections at municipal locations; increase public awareness.</p>	<p><u>Street sweeper operators, building officials and other city staff will visually scan Visually inspect storm drain and sewer and sewer line hot spots using a video camera. field sites where trash, and other pollutants have been a recurring issue. Coordinate this effort with illegal discharge efforts (see Element 8)</u></p>	2, 3, 4, 5	<p>Document results and provide report in writing to Director of Maintenance Services by September 1 of each year for inclusion in Annual Report.</p>	3-30

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.b.i.-iii. Properly operate and maintain storm drain system.	<p><u>3.5 Inlet and structural control, as well as drainage "hot spots" will be inspected and cleaned.</u></p> <p>Municipal Maintenance Fixed Facility: Inspect and clean storm drain system regularly.</p> <p>Protect receiving waters from debris by implementing a systematic maintenance approach to municipal drainage systems.</p>	<p>Catch basins, inlets, structural controls, municipal outfalls, and "hot spots" will be inspected and cleaned annually based upon the schedule in BMP 3.4 3-13.</p> <p><u>"Hot spots" area defined as areas where debris or other pollutants of concern have been reported more than once during a 6-month period, or where chemical pollutants of concern (POC) have exceeded Federal or state limits.</u></p>	2, 3, 4, 5	<p>Clean out catch basins, inlets and structural controls before season's first rainfall.</p> <p>Document and provide repair schedule in Annual Work Plan; Summaries will be provided to Director of Maintenance Services by September 1 of each year beginning in 2007.</p> <p><u>Implementers:</u> Maintenance Services Department, Wastewater Division</p>	3-18

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.c. Inventory and maintenance of permittee owned facilities, roads, and parking lots. V.d. Designate and implement BMPs.	<u>3.6 Repair/resurface existing parking lots.</u> Fixed-facility protection: municipal parking lots and hardscape areas. Reduce or prevent the discharge of pollutants from parking/storage areas and include use of good housekeeping practices.	Repair existing parking lots to reduce downstream discharges <u>of oil, heavy metals, asphalt and rubber. Install separators at select catch basins and replace any damaged storm sewer lines at City Corporation Yard.</u>	2, 3, 4, 5	Implement capital improvement projects # 9106 to repair surfaces of listed municipal parking lots annually from FYs: 06/07 through 08/09 <u>2012.</u> <u>Implementers:</u> Maintenance Services and other municipal departments	3-29
V.c.ii. Inventory and maintenance of permittee owned facilities, roads, and parking lots.	<u>3.7 Sweep municipal parking lots.</u> Fixed-facility protection: municipal parking lots and hardscape areas. Prevent municipal hardscape areas, such as parking lots from contributing to degradation of downstream water quality.	Sweep municipal parking lots <u>that have more than a >50-car per week parking load</u> and all garages regularly. <u>Loading is determined by visual inspections by maintenance staff. Include new lots as they are built.</u> <u>Note: there are no lots numbered 4, 7 or 9.—see text of SWMP. Lot #14 is the Monterey Street Garage.</u>	2, 3, 4, 5	Sweep municipal parking lots: 1, 2,3,5,8,13,17, Salinas and Monterey Street Garages, and the Transit Center Lot listed once per month. Track and report activity in writing	3-29

Table 3.7 Summary of Best Management Practices:
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				to Director of Maintenance Services by September of each year; include in Annual Report. <i>Implementers:</i> Wastewater and Park Division crew supervisors	
V.c.ii. Inventory and maintenance of permittee owned and private facilities, roads, and parking lots.	<p><u>3.8 Adopt and implement design standards for parking lots and other municipal facilities.</u></p> <p>Fixed-facility protection: municipal parking lots and hardscape areas.</p> <p>Reduce or prevent the discharge of pollutants from parking/storage areas and include use of good housekeeping practices.</p>	<p><u>Adopt Stormwater Development Standards that include source control architectural designs for parking lots and other hardscape facilities.</u></p> <p><u>Implement design standards contained within plan. (For related information: see Element 4 and Table 4 for more information re: source control and the City's plans on adoption of a broad range of standards within the Stormwater Development Plan.</u></p> <p>Encourage alternative <u>Require new parking designs that promote on-site source control</u> for new development,</p>	3, 4, 5	<p><u>Adopt by December 2007.</u></p> <p><i>Implementers:</i> City of Salinas Development and Engineering Services Department, RWQCB, and consultant engineering firm</p>	3-29

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		<u>such as pervious pavements, modular paving units, rain gardens, bio-filtration swales and other designs and maintenance strategies for parking lots</u> —(see DSP and Element 4 for more information). <u>Reduce the POC that eminent from vehicles in parking lots, such as petroleum, oil, copper and other metals, and rubber to the MEP</u>			
V.d. Designate and implement BMPs.	<p><u>3.9 Monitor weather conditions before pesticide application.</u></p> <p>Materials Handling: Apply chemicals in safe manner—all pesticide applications are made in accordance with federal, state and local regulations.</p> <p>Prevent chemicals and irrigation overspray from ending-up in downstream receiving waters; ensure safe application of chemicals.</p>	Crew supervisors will monitor weather conditions before they schedule crews to conduct pesticide application. Crews will use their training on proper use of chemicals and how to read labels—see BMPs 3-1 through 3-4.	1, 2, 3, 4, 5	<p>100% of spraying will be conducted when weather is dry and air is calm: no rain or winds over 10 mph are predicted for the next 24 hours. See BMPs 3-1 through 3-4 for training goals.</p> <p><u>Implementers:</u> Maintenance Services Department--various divisions</p>	3-11

Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs.	<p><u>3.10a Annually test and repair irrigation systems.</u></p> <p><u>3.11b From April through October, weekly monitor city irrigation systems for excessive runoff or leaks</u></p> <p><u>3.10c From April through October make daily site observations to monitor watering effectiveness and efficiency.</u></p> <p>Operations: operate irrigation systems in efficient manner (see Section 3.2 of SWMP).</p> <p>Minimize municipal contribution of non-rainfall runoff from irrigation practices at municipal facilities.</p>	Park Division crews will take action to reduce runoff amounts through adjustments to: automatic irrigation controllers, spray heads, watering times, soil percolation rates, and/or drainage flow patterns.	3, 4, 5	<p>Annually test and repair irrigation systems prior to irrigation season (April) to ensure proper operation (no excess runoff). <u>Goal is to maintain 90% of the sprinkler inventory in an operational condition, as determined using the performances measures listed below or turn off until repair occur:</u></p> <p>During irrigation season (April through October), monitor City irrigation systems weekly to ensure: <u>automated</u></p>	

**Table 3.7 Summary of Best Management Practices:
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				<p><u>systems irrigate when activated</u>, prevention of overspray, excessive runoff, or leaks. Make adjustments/ and repairs as needed. <u>For example, shut off automated systems' cycles when rain is predicted for more than one day.</u></p> <p>During the irrigation season, make daily observations regarding landscape conditions (overspray, broken spray heads, excessive runoff, soggy or dry areas, etc.) adjust watering</p>	

Table 3.7 Summary of Best Management Practices:
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Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<p>schedules accordingly, <u>including meeting City water conservation principals, such as having shut-off devices on all hoses and not leaving manual systems on and unattended for more than 30 minutes.</u></p> <p><u>Implementers:</u> Maintenance Services Department, Park Division</p>	
V.d. Designate and implement BMPs.	<p><u>3.11 Perform vehicle maintenance under covered areas.</u> Municipal Maintenance: Protect downstream receiving waters from fixed facility sources—see Appendix B-1.</p> <p>Protect receiving waters from potential contamination caused by municipal</p>	Perform vehicle maintenance under covered areas.	1, 2, 3, 4, 5	<p>>90% of vehicle maintenance performed under covered area; shop floors swept daily.</p> <p><u>Implementers:</u></p>	3-13

**Table 3.7 Summary of Best Management Practices:
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Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	fleet vehicle maintenance and repair and other City facilities.			Facilities and Fleet Division, Salinas Maintenance Services Department	
V.d. Designate and implement BMPs.	<p><u>3.12 a Inspect City owned properties for compliance with SWMP and NPDES Permit.</u></p> <p><u>3.12b Document results</u></p> <p>Municipal Maintenance: Protect downstream receiving waters from fixed facility sources—see Appendix B-1.</p> <p>Protect receiving waters from potential contamination caused by municipal fleet vehicle maintenance and repair and other City facilities.</p>	<p>Inspect City-owned properties for compliance with SWMP and NPDES Permit; document results in report by 9/1 of each year. <u>Inspections will be conducted based upon the Inspection Checklist for Salinas Vehicle Service Facilities at the end of this table (see page 3-81). Depending upon the scope of work, properties out of compliance will either be scheduled as part for regular maintenance/repair, or logged into the City's Capital Improvement Program Budget for City Council authorization.</u></p>	1, 2, 3, 4, 5	<p>Annually Inspect City-owned properties for compliance with SWMP and NPDES Permit; document in report by 9/1 of each year.</p> <p><u>Implementers:</u> Maintenance Services Department's division managers</p>	3-13
V.d. Designate and implement BMPs.	<p><u>3.13 Store fluids covered away from exposure to weather.</u></p> <p>Materials Handling: Protect downstream receiving waters from fixed facility sources. For a more complete description of this BMP (see</p>	<p>Store fluids used during vehicle maintenance and repair in re-closable containers and covered from weather. Implement department's Spill Prevention Control and Response Plan (SCRPP).</p>	1, 2, 3, 4, 5	100% of all hazardous materials stored consistent with Maintenance Services Department's	3-14

Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<p>Appendix B-1).</p> <p>Protect receiving waters from potential contamination caused by municipal fleet vehicle maintenance and repair.</p>			<p>Spill Prevention Control and Response Plan. Spills responded to 100% of time consistent with SCRP.</p> <p><i>Implementers:</i> Maintenance Services Department's Facilities and Fleet, Park, and Wastewater Divisions</p>	
V.d. Designate and implement BMPs.	<p><u>3.14 Use SWPPPs/maintenance manuals and field observations to schedule repairs and remodels.</u></p> <p>Municipal Maintenance: Repair high priority municipal sites.</p> <p>Ensure that municipal facilities do not contribute to downstream water quality degradation.</p>	<p>Use <u>SWPPPs/ maintenance manuals and field observations</u> to schedule repairs and remodels of high-priority City facilities that present greatest risks to downstream receiving water. Begin repairs with City Corporation Yard (Yard). Use schedules to solicit capital improvement budget request.</p> <p><u>Repairs and improvements to all municipal sites are based upon the following criteria:</u></p>	1	<p>Use Maintenance Manuals to schedule repairs and remodels of high-priority City facilities that present greatest risks to downstream receiving water. Begin repairs with City</p>	3-15

**Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		<ol style="list-style-type: none"> 1. <u>Safety—Immediate potential for concern.</u> 2. <u>Safety- Potential for future concern. This includes those sites that may pose an impact to downstream water quality based upon the presence of specific POC, their magnitude and potential to escalate to a more serious impact. This is a professional judgment made by the site manager and division team.</u> 		<p>Corporation Yard (Yard). Use schedules to solicit capital improvement budget request.</p> <p><u>Each division will document needed repairs. Divisions will submit proposed Capital repairs for inclusion into the City's Capital Improvement Program budget each year by September 1 and include in Annual Report.</u></p> <p><u>Summaries will be provided to Director of Maintenance Services by September 1 of each year.</u></p>	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs:	Municipal Maintenance: Repair high priority municipal sites: Ensure that municipal facilities do not contribute to downstream water quality degradation:	Use SWPPPs and maintenance manuals to schedule repairs and remodels of high-priority City facilities that present greatest risks to downstream receiving water. Begin repairs with City Corporation Yard (Yard). Use schedules to solicit capital improvement budget request.	2, 3, 4, 5	<u>beginning in 2007.</u> <u>Implementers:</u> Maintenance Services, and Development and Engineering Departments and contractors.	3-15

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Services, and Development and Engineering Departments and contractors.	
V.d. Designate and implement BMPs. V.f. Develop and Implement SWPPPs for municipal facilities.	Municipal Maintenance Fixed Facility: Inspect municipal facilities. Prevent municipal facilities from contributing to downstream water quality degradation.	Use municipal SWPPPs and Maintenance Manuals to pro-actively schedule and conduct repairs and remodels of high-priority municipal facilities. High risk sites are defined as facilities that present greatest risks to downstream receiving waters	3, 4, 5	Provide repair schedule in following year Annual Work Plan; summarize past repairs in Annual Report. Summaries will be provided to Director of Maintenance Services by September 1 of each year beginning in 2007. Implementers: Maintenance Services Department, all divisions.	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs.	3.15 Remove trash, debris, animal waste and plastics from downstream water resources. Municipal Maintenance fixed facility good housekeeping.	Coordinate with Salinas Valley Solid Waste Authority; empty trash containers at municipal sites. Regularly inspect and clean trash enclosures.	1, 2, 3, 4, 5	Daily inspect sites, pick up debris and empty 100% of all trash containers from municipal sites. Report results by September 1 of each year to Director and in Annual Report. <u>Implementers:</u> Maintenance Services Department Division managers	3-19
V.d. Designate and implement BMPs.	Municipal Maintenance fixed facility good housekeeping. Ensure trash, debris, animal waste and plastics are not polluting downstream water resources.	Pick up trash, debris and litter from municipal facilities on scheduled basis.	1, 2, 3, 4, 5	Daily inspect sites, and collect and dispose of trash and debris. Implementers: Park Division for all parks and City facilities; Facilities Divisions for	3-19

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Corporation Yard	
V.d. Designate and implement BMPs.	Municipal Maintenance Materials Handling. Avoid pollutants from municipal waste materials becoming pollutants.	Develop a Spill response plan as part of Municipal Maintenance Manual activities	3	Provide to Director of Maintenance Services by June 2007. Implementers: Park Division, Fleet and Facilities, and Wastewater Divisions	3-20

Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs.	<p><u>3.16 Purchase recycled and environmentally sustainable (green) products where practical.</u></p> <p>Selection and Handling of Materials: Selection and proper implementation/handling of BMPs for landscape and other maintenance activities.</p> <p>Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through IPM and other means, such as reducing the amount of waste from consumables.</p>	Purchase recycled <u>and green</u> products where practical. This includes consumable chemicals and larger items, such as recycled park benches and playground equipment.	2, 3, 4, 5	<p><u>Document purchase types and quantities.</u></p> <p><u>Implementers:</u> Park Division and Urban Forestry Unit</p>	3-21
V.d. Designate and implement BMPs.	<p><u>3.17 Apply wood chips from Urban Forestry Division trimmings as a weed-preventive mulch</u></p> <p>Municipal Maintenance Materials Handling.</p> <p>Avoid pollutants from municipal waste materials becoming pollutants.</p>	Apply wood chips from Urban Forestry Division trimmings as a weed-preventive mulch to parks and landscaped areas. <u>Mulch will be applied to a depth of 3 inches as site conditions dictate.</u>	1, 2, 3, 4, 5	Results will be recorded and included by September 1 of each year in a report to the Director of Maintenance Services and included in the Annual Report. Amount of wood chips generated	3-20

Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				and applied will be recorded and provided to the Director of Maintenance Services by September 1 of each year for inclusion into the Annual Report. <i>Implementers:</i> Maintenance Services Department Division Managers and crew supervisors	
V.d. Designate and implement BMPs.	Road and Street Maintenance. <u>3.18 Recycle paint and other materials whenever possible</u> <u>3.19 Eliminate use of toxins for street weed control as practicable. Utilize less toxic herbicides for weed control which degrade quickly.</u>	Recycle paint and other materials whenever possible <u>consistent with Monterey County Environmental Health Division requirements.</u> (see BMP SC 70) Eliminate use of toxins for street weed control; use the PHAER approach and IPM instead. <u>See text of this Element for discussions on IPM and PHAER</u>	1, 2, 3, 4, 5	Track and report use of <u>recycled</u> paint and paint inventories each year by September 1. <i>Implementers:</i> Maintenance Services Dept. Street Division	3-31

Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	Prevent or reduce pollutants from street maintenance from degrading receiving waters.			Manager	
V.d. Designate and implement BMPs. V.c.ii. Inventory and maintenance of permittee owned facilities, roads, and parking lots.	<u>3.20</u> Municipal Maintenance: mechanically sweep streets to remove pollutants. Prevent litter, plastics, oil, grease, brake linings and other materials from winding up in receiving waters.	Sweep streets on a regular basis with proper equipment.	1, 2, 3, 4, 5	Commercial streets will be swept once per week => 95% of the time; residential streets will be swept twice per month => 95% of the time. <u>Implementers:</u> Maintenance Services Department, Wastewater Division	3-12

Table 3.7 Summary of Best Management Practices:
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Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
<p>V.d. Designate and implement BMPs.</p> <p>V.e. Implement pesticide, herbicide, and fertilizer application.</p>	<p>Landscape practices: <u>3.21 Update tree planting list and implement list to exclude tree species that rely on the regular use of pesticides for good health. Prepare list of species that are compatible with low impact designs in Salinas.</u></p> <p>Reduce dependence upon potentially hazardous chemicals through increased application of IPM.</p>	<p>As new development occurs, street trees (such as natives and indigenous species) will exclude species and varieties that are known to require regular use of pesticides.</p>	<p>1, 2, 3, 4, 5</p>	<p>Urban Forestry staff will <u>update list and</u> conduct plan <u>checks to ensure consistency with new list</u> to assure planting plans achieve goals for new development planting in City rights of way. Update street tree list. <u>LID plant list will be completed by July, 2008.</u></p> <p><u>Implementers:</u> Director of Maintenance Services and Urban Forestry Crew Supervisor</p>	<p>3-24</p>

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<p>V.d. Designate and implement BMPs.</p> <p>V.e. Implement pesticide, herbicide, and fertilizer application.</p>	<p><u>3.22</u> Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through IPM and other means, such as reducing the amount of waste from consumables.</p> <p>Selection and Handling of Materials:</p> <p>Selection and proper implementation / handling of BMPs for landscape and other maintenance activities.</p>	<p>Through tailgate sessions training <u>regarding the selection and application of materials and changes to the types of materials used</u>, incorporate implement BMPs and SWPPP/ maintenance manual information into daily practices (See D.I. for more information); production planning and sequencing of materials to reduce amount of waste generated.</p>	5	<p>By end of Permit term, reduce municipal use of overhead aerial applications of dormant oils and summer oils by 50% from 2004 levels. <u>Use of summer and dormant oils will be replaced with more environmentally safe materials.</u></p> <p><u>Implementers:</u> Park Division and Urban Forestry Unit</p>	3-21

Table 3.7 Summary of Best Management Practices:
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Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs. V.e. Implement pesticide, herbicide, and fertilizer application.	<p><u>3.23</u> Selection and Handling of Materials: <u>Reduce pesticide application to existing trees</u></p> <p>Selection and proper implementation/handling of BMPs for landscape and other maintenance activities.</p> <p>Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM.</p>	Through tailgate sessions <u>training session regarding the selection and application of materials</u> , <u>implement incorporate listed BMPs</u> and <u>SWPPPs/maintenance manual information into daily practices</u> (See D-1. for more information).	2, 3, 4, 5	<p>Foliar pesticide application to existing street trees will be reduced by 25% during the Permit term from 2004 levels. Results will be documented in Annual Report to Director of Maintenance Services Dept. by September 1 of each year. <u>Replace use of summer and dormant oils with a variety of more environmentally safe materials.</u></p> <p><i>Implementers:</i> Park Division and Urban Forestry Unit</p>	3-22

**Table 3.7 Summary of Best Management Practices:
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Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
<p>V.d. Designate and implement BMPs.</p> <p>V.e. Implement pesticide, herbicide, and fertilizer application.</p> <p>V.g. Municipal Inspections.</p>	<p><u>3.24 Mixing and loading of chemicals.</u> Selection and Handling of Materials: Selection and proper implementation/handling of BMPs for landscape and other maintenance activities.</p> <p>Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM and physical techniques.</p>	Mixing and loading of chemicals will be performed in areas that have no potential to run-off to a nearby storm drain.	1, 2, 3, 4, 5	<p>100% of chemical mixing and loading will be performed in areas away from storm drains and water bodies. Document and report by 9/1 of each year.</p> <p><i>Implementers:</i> Maintenance Services Department Division Managers</p>	3-26
<p>V.d. Designate and implement BMPs.</p> <p>V.e. Implement pesticide, herbicide, and fertilizer application.</p> <p>V.g. Municipal Inspections.</p>	<p><u>3.25 Selection and Handling of Materials: Eliminate all use of chemicals included on State 303(D) listed water bodies anywhere within city limits, unless a serious public health and safety concern exists.</u></p> <p>Selection and proper implementation/handling of BMPs for landscape and other maintenance activities.</p>	No pesticides will be applied in the Gabilan Creek Wilderness or other wetland and/or creek area, unless a serious public health and safety concern exists for which no other remedy is feasible. <u>Eliminate all use of chemicals included on State 303(d) listed water bodies.</u>	1, 2, 3, 4, 5	<p>Apply no pesticides in Gabilan Creek Wilderness. <u>Eliminate all use of chemicals included on State 303(D) listed water bodies within City limits by 2005 except as</u></p>	3-26

**Table 3.7 Summary of Best Management Practices:
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Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM and physical techniques.			<u>required to address serious public health and safety issues.</u> <u>Implementers:</u> Maintenance Services Department Division Managers	
V.d. Designate and implement BMPs. V.e. Implement pesticide, herbicide, and fertilizer application. V.g. Municipal Inspections.	<u>3.26</u> Selection and Handling of Materials: <u>Inventory of materials stored and delivered.</u> Selection and proper implementation/ handling of BMPs for landscape and other maintenance activities. Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM and physical techniques.	Keep an accurate and up-to-date inventory of <u>all</u> the materials delivered and stored on-site (also see BMP SC-31).	1, 2, 3, 4, 5	Provide year-end summary of inventory to Director by September 1 of each year for inclusion in Annual Report. <u>Implementers:</u> Maintenance Services Department Division Managers	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
<p>V.d. Designate and implement BMPs.</p> <p>V.e. Implement pesticide, herbicide, and fertilizer application.</p> <p>V.i. Provide annual training.</p>	<p><u>3.27</u> Selection and Handling of Materials: <u>Mix and load pesticides in conformance with manufacturer's labels</u>. Selection and proper implementation of BMPs for landscape and other maintenance activities.</p> <p>Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM.</p>	Through departmental training and tailgate sessions, inform staff regarding proper use and handling of chemicals consistent with Monterey County Environmental Health Department and County Agricultural Commissioner's Office. Document training into Maintenance manuals (See D.I. for more information).	2, 3, 4, 5	<p>All mixing and loading of pesticide applications will be performed in conformance with applicable safety regulations and laws.</p> <p>No citations issued for improper use by City <u>City will be 100% compliant with</u> County of Monterey Agricultural Commissioner's Office. <u>City will</u> <u>immediate abate</u> <u>any municipal activities found to be non-compliant and will refer inappropriate private sector use to the County of</u></p>	3-23

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.d. Designate and implement BMPs. V.e. Implement pesticide, herbicide, and fertilizer application. V.i. Provide annual training.	<u>3.28</u> Selection and Handling of Materials: <u>Select and properly implement</u> BMPs for landscape and other maintenance activities. Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM.	Through departmental training and tailgate sessions, inform staff regarding proper use and handling of chemicals consistent with Monterey County Environmental Health Department and County Agricultural Commissioner's Office. Document training into Maintenance manuals (See D.I. for more information). <u>City will eliminate use of pesticides listed on state 303(d) by meeting BMPs contained in SWPPPs identified in Appendix D-1, and by management directive to staff and direct oversight during application process from certified pesticide applicators. City will simply discontinue to purchase these</u>	4, 5	<u>Monterey Agricultural Commissioner's Office.</u> <u>Implementers:</u> Urban Forestry Unit, Park Division, Street Division, and Wastewater Division. By 2009, eliminate use of pesticides and hazardous chemicals in areas of municipal sites that are exposure problems to down-stream ecosystems, and/or human health. Report quantity and type of chemical use	3-25

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		<u>materials and recycle them consistent with Monterey County Agricultural Commissioner's Office protocols.</u>		each September 1 & in A.R. <u>See Element 6 Public Education and Outreach for a description of activities to educate the public and landscape professionals.</u> <u>Implementers:</u> Maintenance Services Department: Park, Wastewater, and Fleet and Facilities Divisions	
V.d. Designate and implement BMPs. V.e. Implement pesticide, herbicide, and fertilizer application. V.i. Provide annual training.	<u>3.29</u> Selection and Handling of Materials: Selection and proper implementation/ handling of BMPs for landscape and other maintenance activities. <u>Report quantity and type of chemicals used.</u> Reduce or eliminate unsafe practices	Through departmental training and tailgate sessions, inform staff regarding proper use and handling of chemicals consistent with Monterey County Environmental Health Department and County Agricultural Commissioner's Office. Document training into Maintenance manuals	1, 2, 3, 4, 5	Report quantity and type of chemicals used each September 1 and in Annual Report. <u>Implementers:</u>	3-25

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM.	(See D.I. for more information).		Maintenance Services Department: Park, Wastewater, and Fleet and Facilities Divisions	
V.d. Designate and implement BMPs. V.e. Implement pesticide, herbicide, and fertilizer application. V.i. Provide annual training.	Selection and Handling of Materials: Selection and proper implementation/handling of BMPs for landscape and other maintenance activities. Reduce or eliminate unsafe practices regarding the handling, application and storage of chemicals. Reduce dependence upon potentially hazardous chemicals through increased application of IPM.	Through departmental training and tailgate sessions, inform staff regarding proper use and handling of chemicals consistent with Monterey County Environmental Health Department and County Agricultural Commissioner's Office. Document training into Maintenance manuals (See D.I. for more information).	4,5	By 2009, eliminate use of pesticides and hazardous chemicals in areas of municipal sites that are exposure problems to downstream ecosystems, and/or human health. Implementers: Maintenance Services Department: Park, Wastewater, and	3-25

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Fleet and Facilities Divisions	
V.e. Implement appropriate requirements for chemical application.	3.30 Road and Street Maintenance. Prevent or reduce pollutants from street maintenance from degrading receiving waters.	Recycle paint and other materials whenever possible (see BMP SC 70). Eliminate use of toxins for street weed control; use the PHAER approach and IPM instead.	1, 2, 3, 4, 5	Track and report use of paint and paint inventories each year by September 1. Implementers: Maintenance Services Dept. Street Division Manager	3-31
V.e. Implement pesticide, herbicide, and fertilizer application.	<u>3.30 Municipal Maintenance Materials Handling. Disposal of municipal recyclable containers.</u> Avoid pollutants from municipal waste materials becoming pollutants.	All municipal recyclable containers will be disposed of and recycled at the Monterey County Agricultural Commissioner's events.	1, 2, 3, 4, 5	Monthly, all municipal recyclable pesticide containers will be disposed of / recycled at the Monterey County Agricultural Commissioner's disposal events. <u>Implementers:</u> Maintenance	3-20

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Services Department Division Managers and crew supervisors	
V.e. Implement appropriate requirements for chemical application.	Road and Street Maintenance: Prevent or reduce pollutants from street maintenance from degrading receiving waters.	Recycle paint and other materials whenever possible. (see BMP SC 70)	1, 2, 3, 4, 5	Track and report use of paint and paint inventories each year by September 1. Implementers: Maintenance Services Dept. Street Division Manager	3-31
V.e. Implement pesticide, herbicide, and fertilizer application.	<u>3.31</u> Materials handling. <u>Pesticides tanks will be emptied of all pesticides through as part of the application process</u> Ensure that pesticides and fertilizers do not enter downstream receiving waters. <u>3.32 Apply fertilizers on an as needed basis</u>	Pesticides tanks will be emptied of all pesticides through <u>as part of</u> the application process. Rinse water will be applied to the sites and not allowed to flow to storm drain facility or water body. Apply fertilizers on an as needed basis solely to ensure plant health;	2, 3, 4, 5	Document and report in writing practice by September 1 of each year to Director and included within Annual report.	3-28

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<u>3.33 Cover storm drains during fertilizer application if in an area where run-of may degrade water quality.</u>	immediately water-in to prevent downstream pollution or plan burn. Cover storm drains during fertilizer application and cleaning operations of picnic and barbeque areas to prevent materials from entering storm drains/receiving waters.		<u>Implementers:</u> Maintenance Services Department Park Division	
<u>V.e. Implement appropriate requirements for chemical application.</u>	<u>Road and Street Maintenance:</u> <u>Prevent or reduce pollutants from street maintenance from degrading receiving waters.</u>	<u>Eliminate use of toxins for street weed control; use the PHAER approach and IPM instead.</u>	<u>3, 4, 5</u>	<u>Track and report use of chemicals by September 1 of each year and include in Annual Report.</u> <u>Implementers:</u> Street Division Manager	<u>3-31</u>
<u>V.e. Implement appropriate requirements for chemical application.</u>	<u>Road and Street Maintenance:</u> <u>Prevent or reduce pollutants from street maintenance from degrading receiving waters.</u>	<u>Use least toxic materials available; e.g. water-based paints, gels or sprays for graffiti removal</u>	<u>3, 4, 5</u>	<u>Document and record paint used for graffiti removal; provide written summary to Director of Maintenance Services by September 1 of</u>	<u>3-31</u>

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				each year. Implementers: Maintenance Services Department and volunteers	
V.f. Develop and Implement SWPPPs for municipal facilities.	<u>3.34</u> Municipal Maintenance: Fixed Facility. Prepare and implement SWPPPs/municipal maintenance manuals. Ensure City facilities do not contribute to downstream water quality degradation.	Prepare and implement Municipal Maintenance Manuals and SWPPPs for City facilities. Annually, ensure that manuals and plans are updated as necessary and are implemented.	2,3,4, 5	Prepare municipal maintenance manuals/ SWPPPs for City facilities by August 2006. Implement BMPs and other identified activities as contained within municipal maintenance manuals/ SWPPPs. Document activities. Document and report to Director by 9/1 and include in Annual	3-27

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<p>Report.</p> <p><u>Report activities and results of changes in municipal site appearance due to changes in management practices annually by September 1 to the Director of Maintenance Services and in the City's Annual Report.</u></p> <p><u>Note: changes to water quality are being monitored and will be measured and reported per Element 9 of this Plan.</u></p> <p><u>Implementers:</u> Maintenance Services Department</p>	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				division managers <i>Implementers:</i> Maintenance Services Department division managers	
V.f. Develop and Implement SWPPPs for municipal facilities.	3.35 Municipal Maintenance: Fixed Facility. Prepare and implement SWPPPs. Ensure City facilities do not contribute to downstream water quality degradation.	Prepare and implement Municipal Maintenance Manuals and SWPPPs for City facilities. Annually, ensure that manuals and plans are updated as necessary and are implemented.	3, 4, 5	Report activities and results of changes in municipal site appearance due to changes in management practices annually by September 1 to the Director of Maintenance Services and in the City's Annual Report. Note: changes to water quality are being monitored and will be measured and	3-27

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.i. Provide annual training.	<p>3.35 Training: Introduce Provide basic concepts of watershed management information and fixed-facility BMP orientation training to Municipal Maintenance Department staff. (See Appendix B-1 for BMPs)</p> <p>Protect local water resources by providing employees with a baseline knowledge of watershed issues, including an overview of the types of municipal non-stormwater discharges, associated with maintenance activities.</p>	<p>Conduct an in-service training session and orientation to on watershed management actions related to maintenance activities. City staff will show the film, <i>After the Storm</i> and discuss terms and implications. Field maintenance manuals (fixed-facility BMPs) will be reviewed.</p>	1	<p>reported per Element 9 of this Plan. Implementers: Maintenance Services Department division managers</p> <p>100-percent of City Maintenance Services Department staff attend. Staff will be administered a pre-training test and one post-training to determine effectiveness. Success will be determined by the number of employees attending (>=85% of all maintenance staff), and the number of staff</p>	3-1

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<p>who score \geq 75% correct.</p> <p><u>Implementers:</u> City staff and experts, such as County of Monterey Environmental Health Department, Monterey Bay National Marine Sanctuary, CSUMB Watershed Institute, EPA and others</p>	
V.i. Provide annual training.	<p>3.36 Training: Provide basic watershed management information and fixed-facility BMP orientation training to Municipal Maintenance Department staff. (See Appendix B-1)</p> <p>Train City Maintenance Services Department personnel regarding basic operations and management protocols (BMPs), such as hazardous material storage and handling (spill prevention</p>	Train relevant Maintenance Services Dept. staff on OSHA-required Health and Safety Training (29 CFR 1910.120); OSHA Confined Space Entry (Cal-OSHA Confined Space, Title 8 and federal OSHA 29 CFR 1910.146)	1, 2, 3, 4, 5	<p>Track and report by September 1 to Director of Maintenance Services and include in Annual Report.</p> <p><u>Implementers:</u> Director of Maintenance</p>	3-1

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	and control) to protect downstream receiving waters.			Services Department, division managers and stakeholder partners, such as County of Monterey Environmental Health Division.	
V.i. Provide annual training.	<p>3.37 Training: On-going basic orientation.</p> <p>Train new staff and provide refresher training for those staff that missed initial training, or scored lower than 75% correct on initial post-training test. (See Section 3.2 and Appendix B-1.)</p> <p>Protect local water resources by providing employees with baseline knowledge of watershed issues and fixed-facility BMPs, including how maintenance responsibilities are linked to water quality.</p> <p>Educate Maintenance staff regarding basic operations and management</p>	Conduct an in-service training session on watershed management related to maintenance activities. City staff will show the film, <i>After the Storm</i> and discuss terms and implications. Field maintenance manuals (fixed-facility BMPs) will be reviewed.	2, 3, 4, 5	<p>Train new hires within three-months of their employment.</p> <p>Staff attending will be given a pre-test to determine how much they know prior to the training session, as well as a post-training test to determine training effectiveness.</p>	3-2

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	protocols (BMPs) re: hazardous materials.			Success will be determined by the number of employees attending (>=80% will be considered success), and the number of employees who receive a score of >/ = 75% correct. <u>Implementers:</u> Maintenance Services Department staff will conduct training.	
V.i. Provide annual training.	3.38 Training: Based upon first year test results, each maintenance division within Salinas' Maintenance Services Department will prepare an annual employee "tailgate" field-training program that will be completed by September 1 of each year for	Division managers will submit their proposed "tailgate" training program to the Director of Maintenance Services or designee for review and approval.	2, 3, 4, 5	Preparation and submittal of annual training program by September 1 of each year.	3-3

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<p>implementation the following year.</p> <p>Protect local water resources by developing and conducting on-going "tailgate" training to supplement baseline knowledge of watershed issues with hands-on field training of BMPs.</p>			<p><u>Implementers:</u> Maintenance Services Dept. division managers and crew supervisors, the Director of Maintenance Services or designee</p>	
V.i. Provide annual training.	<p>3.39 Training: Educate <u>business operators and</u> City Maintenance Services Department personnel regarding local, state and Federal regulation and basic operations, as well as management protocols, such as hazardous material storage and handling (spill prevention and control) to protect downstream receiving waters.</p> <p><u>Note: For more information on BMPs for commercial and industrial facilities, please refer to Element 7.</u></p>	<p>Co-produce and /or attend Monterey County Annual Environmental Compliance Workshop and the Ammonia Safety Workshop.</p> <p><u>Based upon first year test results, each maintenance division within Salinas' Maintenance Services Department will participate in, at least, one field-training, or workshop that will be completed by September 1 of each year.</u></p>	1, 2, 3, 4, 5	<p>Salinas will measure success <u>of the Env. Compliance Workshop</u> by the number of attendees from the business community and City. (See <u>Element 7 for discussion on commercial and industrial facilities. Success for private sector</u></p>	3-3

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<p>3.40 Training: Educate City Maintenance Services Department personnel regarding local, state and Federal stormwater regulation and basic operations</p>	<p>Educate City Maintenance Services Department personnel regarding local, state and Federal regulation and basic operations, as well as management protocols, such as hazardous material storage and handling to protect downstream receiving waters.</p>		<p><u>operations will be measured by the number/percentage of businesses that pass inspections.)</u></p> <p>Attendance figures will be compared against 2004 benchmark figures. <u>Success of the tailgate sessions will be measured by the improved condition of City facilities and the amount of highly toxic chemicals bought and applied (as measure under other BMPs in this section).</u></p>	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<u>Implementers:</u> County of Monterey Environmental Health Division and City of Salinas Maintenance Services Dept.	
V.i. Provide annual training.	Training: Educate City Maintenance Services Department personnel regarding local, state and Federal regulation and basic operations, as well as management protocols, such as hazardous material storage and handling (spill prevention and control) to protect downstream receiving waters. -Based upon first year test results, each maintenance division within Salinas' Maintenance Services Department will prepare an annual employee "tailgate" field training program that will be completed by September 1 of each year for implementation the following year.	Training: Based upon first year test results, each maintenance division within Salinas' Maintenance Services Department will prepare an annual employee "tailgate" field training program that will be completed by September 1 of each year for implementation the following year. Educate City Maintenance Services Department personnel regarding local, state and Federal regulation and basic operations, as well as management protocols, such as hazardous material storage and handling (spill prevention and control) to protect downstream receiving waters. Participate in EPA webcast.	2, 3, 4, 5	Experts will be invited every year of the Permit term. "Invited" experts could include EPA staff offered through web broadcasts. <u>Implementers:</u> Maintenance Services Department divisions and EPA	3-3

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.i. Provide annual training.	<p><u>3.41</u> Training: Conduct field/technical training on BMPs relevant to specific maintenance responsibilities.</p> <p>Move training from general to specific, from concepts to on-the-ground practices and demonstrate how best to integrate each BMP into daily maintenance activities.</p>	Division managers and crew supervisors will conduct "tailgate sessions" and/or provide other brief technical sessions three times per year on relevant BMPs, such as IPM.	2, 3, 4, 5	By September 1 of each year, each division will document the number of training sessions they conducted and summarize results at a departmental management meeting, and include in the City's Annual Report. Measurements will include number of staff trained, and the effect of the BMPs on improving resource protection.	3-4
				At least three times each year,	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<u>MS Department staff will attend/conduct training sessions on the proper selection, handling and implementation of BMPs re: landscape and building maintenance practices with an emphasis on reducing environmental/personal injury from the use of potentially hazardous chemicals. Results will be documented and reported to Maintenance Services Director by 9/1 and included in Annual Report.</u>	<u>3.5</u>

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<i>Implementers:</i> Managers and crew supervisors for Maintenance Services Department	
V.i. Provide annual training.	Training re: Selection and proper implementation/ handling of BMPs for day to day landscape and other maintenance activities. Reduce dependence upon potentially hazardous chemicals through increased application of IPM	Attend and conduct training. Integrate lessons into day to day maintenance activities regarding the selection and implementation of BMPs for landscape and building facility maintenance.	1, 2, 3, 4, 5	At least four times each year, MS Department staff will attend/conduct training sessions on the proper selection, handling and implementation of BMPs re: landscape and building maintenance practices with a particular emphasis on reducing environmental/ personal injury	3-5

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				from the use of potentially hazardous chemicals. Results will be documented and reported to Director by 9/1 and included in Annual Report. Implementers: Maintenance Services Department's Park, Wastewater and Facility Divisions, along with outside organizations.	
V.i. Provide annual training.	Training re: Selection and proper handling. Reduce dependence upon potentially hazardous chemicals through increased application of IPM. Maintenance Department management	Attend and conduct regularly scheduled training sessions. Integrate lessons into day to day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	1, 2, 3, 4, 5	Division managers / crew supervisors will conduct four field "tailgate" training sessions per year for field crews regarding	3.6

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	will arrange/conduct tailgate training sessions each year for field crews; division management will supervisors to and/or colleagues at tailgate sessions, 2) monthly management meeting or other in-house training sessions, 3) the Director of MS, and 4) the Annual Report to the RWQCB.			BMPs. Alternative uses to chemicals, such as IPM, will be addressed. Results of training will be documented. Maintenance Department's division managers/supervisors will propose annual training program to Director by 9/1 of each year at management meeting and include in Annual Report. Implementers: Maintenance Services Department division management	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.i. Provide annual training.	Training re: Selection and proper handling.	Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	1, 2, 3, 4, 5	Lessons learned will be included in the MS Department's standard operating procedures. Implementers: Maintenance Services Department division management	3-6
V.i. Provide annual training.	<p><u>3.42</u> Training re: Selection and proper implementation/ handling of BMPs for day-to-day landscape and other maintenance activities.</p> <p>Reduce dependence upon potentially hazardous chemicals through increased application of IPM.</p> <p>Maintenance Department management will arrange/conduct tailgate training sessions each year for field crews; division management will supervisors to and/or colleagues at tailgate</p>	<p>Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection / application of BMPs for landscape and buiding facility maintenance.</p> <p><u>Note: see Element 3 narative text for description of PHAER and IPM.</u></p>	1	<p>In Year 1 of Permit, one staff person will attend PHAER training <u>or related topic, and distribute information and lessons learned to Park Division Maintenance staff.</u></p> <p><u>Implementers:</u></p>	3.7

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	sessions, 2) monthly management meeting or other in-house training sessions, 3) the Director of MS, and 4) the Annual Report to the RWQCB.			Maintenance Services Department	
V.i. Provide annual training.	Training re: Selection and proper implementation/ handling of BMPs for day-to-day landscape and other maintenance activities.	Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	2	95% of Maintenance Services Department staff will be provided an overview of urban water runoff issues along with specific BMPs. Implementers: Park and Forestry Division	3.7
V.i. Provide annual training.	3.43 Training re: Selection and proper implementation/ handling of BMPs for day-to-day landscape and other maintenance activities.	Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	1, 2	25% of Park Division staff will complete full-day course on IPM and document lessons into	3.7

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				MS's maintenance manuals and tailgate training sessions. <i>Implementers:</i> Park and Facility Division Managers & crew supervisors	
V.i. Provide annual training.	<u>3.44</u> Training re: Selection and proper implementation/ handling of BMPs for day-to-day landscape and other maintenance activities.	Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	3	Two MS staff members will attend a 2-day conference re: "Ecological Pest Management" and present lessons learned at tailgate sessions and departmental mgmt. meeting. Based upon lessons learned, Maintenance Manuals and BMPs will be amended.	3.7

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<i>Implementers:</i> Park Division	
V.i. Provide annual training.	<p><u>3.45</u> Training re: Selection and proper implementation/ handling of BMPs for landscape and other maintenance activities.</p> <p>Reduce dependence upon potentially hazardous chemicals through increased application of IPM.</p>	Attend and conduct regularly scheduled training sessions. Integrate lessons into day-to-day maintenance activities regarding the selection/ application of BMPs for landscape and building facility maintenance.	2	<p>In year 2, 5 (12%) Park Division staff will complete an 8-session landscape series called: Monterey Bay Green Gardener. <u>City will incorporate lessons learned into daily activities through tailgate trainings, supervision and updates to SWPPPs and site BMPs.</u></p> <p><i>Implementers:</i> Park Division crew supervisors and staff</p>	3.8

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
V.i. Provide annual training.	3.46 Training re: Selection and proper implementation/ handling of BMPs for landscape and other maintenance activities.	Maintenance Department management will arrange/conduct tailgate training sessions each year for field crews.	1, 2, 3, 4, 5	100% of Maintenance Services Department staff members who apply chemicals will receive annual training on stormwater protection. Tests will be given at the conclusion of the training; 75% correct will be viewed as successful completion. <i>Implementers:</i> Director of Maintenance Services and all division managers	3.8
V.i. Provide annual training.	3.47 Training re: Selection and proper implementation/ handling of BMPs for day-to-day landscape and other maintenance activities.		1, 2, 3, 4, 5	100% of Maintenance Services Park's Division supervisory staff	3.8

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				<p>responsible for pesticide application will be certified as a "Qualified Pest Control Applicator", or a "Pest Control Advisor."</p> <p>Supervisors will meet 3-times per year, minimum, to review program/make recommendation.</p> <p><u>Report outcomes and actions taken by 9/1 or each year as part of Annual Report.</u></p> <p><u>Implementers:</u> Park Division crew supervisors</p>	

Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII.c. Stenciling and signage.	<p><u>3.48</u> Field: reduce/prevent non-stormwater discharges to municipal facilities.</p> <p>Reduce illegal dumping/connections at municipal locations; increase public awareness</p>	Post “no dumping” or environmentally sensitive signs with a phone number for reporting dumping and disposal at trash municipal “hot spots.”	1	<p>By end of first year post no-dumping signs at ‘hot spot and environmentally sensitive municipal locations. Track and report to Director by September 1.</p> <p><i>Implementers:</i> Streets Division Manager</p>	3-30
VII.c. Stenciling and signage.	<p><u>3.49</u> Field: reduce/prevent non-stormwater discharges to municipal facilities.</p> <p>Reduce illegal dumping/connections at municipal locations; increase public awareness</p>	Stencil storm drains in high traffic areas of downtown and in redevelopment areas. <u>Use consultant as labor contractor and secure grant monies to fund program. Integrate with educational program with school children—see Element 6.</u>	3	<p>Complete <u>at least 50 locations</u> by June 2007; track and report on stenciling activity of storm drains.</p> <p><i>Implementers:</i> Wastewater Division and <u>consultant educational partner</u></p>	3-30

**Table 3.7 Summary of Best Management Practices:
Municipal Maintenance Element**

Develop and implement a municipal maintenance program to reduce to the MEP the discharge of pollutants from all Permittee-owned facilities, roads, parking lots, municipal waste facilities, and the storm water collection system.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII.c. Stenciling and signage.	Road and Street Maintenance. Prevent or reduce pollutants from street maintenance from degrading receiving waters.		4, 5	Secure City Council approval. Implementers: Director of Maintenance Services Dept. and other City departments	3-31

Facility Name	From BMP 3.12a: Vehicle Service Maintenance Facility Checklist
Facility Address	
Facility Contact Person	
Facility Telephone	
Inspector's Name	
Date of Inspection	

HOUSEKEEPING	YES	NO	OTHER
Are drip pans used under leaking vehicles to capture fluids?			
Are shop floors and other paved surfaces regularly swept, vacuumed, or mopped rather than hosed down?			
Are all unnecessary hoses removed to discourage washing down floors and outside paved areas?			
Are all metal filings, dust, and paint chips collected from grinding, shaving, and sanding disposed of properly?			
Is all dust from other activities (e.g. brake pad dust) collected and disposed of in compliance with local requirements?			
Are cleaning rags recycled through an industrial laundry?			
Are storm drain inlets, catch basins, and any storm water treatment systems within the facility boundary inspected and cleaned before October 1 each year?			
Are storm water treatment facilities within the facility boundary being properly maintained?			
Are storm drains labeled with "No Dumping – Discharges to Ocean"			
Are vehicles that are received to be parted or scavenged parked on a paved surface and immediately drained of gasoline and other fluids, and are these fluids properly disposed of?			
Are drip pans in place to catch leaking fluids?			
Are all fluids drained from components, such as engine blocks, which are stored for reuse or reclamation?			
Are these components kept under cover and on a drop pan or sealed floor?			
STORAGE	YES	NO	OTHER
Are hazardous materials and wastes, including waste containers of antifreeze and oil, stored in secondary containment where they are protected from rain and in a way that prevents spills from reaching the sanitary sewer or storm drain?			
Are lids kept on waste barrels and containers, and stored indoors or under cover to reduce exposure to rain?			

Stormwater Management Plan

Are all hazardous wastes labeled according to hazardous waste regulations?			
Are wastes kept separate to increase waste recycling/disposal options and to reduce costs?			
Is waste oil prevented from being mixed with fuel, antifreeze, or chlorinated solvents?			
Are all bulk fluids and wastes double contained to prevent accidental discharges to the sewer and storm drain?			

STORAGE (CONT'D)	YES	NO	OTHER
Are all storage areas kept clean and dry, so that leaks and spills are detected as soon as possible?			
Are new and old batteries stored securely to avoid breakage and acid spills during earthquakes?			
Are all of the shelves secured to the wall?			
Are all used batteries stored indoors and in plastic trays to contain potential leaks?			
Are all old batteries recycled?			
SPILL CONTROL (Note: The Best Spill Control is Prevention)			
Is the spill response plan maintained and kept current, and are all employees trained on the elements of the plan?			
Is the distance between waste collection points and storage areas minimized?			
Are all solid and liquid wastes contained and covered, especially during transfer?			
Are absorbent materials purchased and maintained in accordance with local regulations and procedures for containment and cleanup of different spills?			
Are they easily accessible from anywhere in the shop?			
Are the leaks and drips spot cleaned routinely?			
Are the floor drains checked to ensure that they are not connected to or discharge to the storm drain system?			
OUTDOOR WASTE RECEPTACLE AREAS	YES	NO	OTHER
Are leaks and drips cleaned routinely to prevent runoff of spillage?			
Is the possibility of pollution from outside waste receptacles minimized by doing at least one of the following:			
Using only watertight waste receptacle(s) and keeping the lid(s) closed, or			
Grading and paving the waste receptacle area to prevent run-on of storm water, and installing a low containment berm around the waste receptacle area or installing a roof over the waste receptacle area			
EDUCATION AND TRAINING	YES	NO	OTHER
Are all employees trained upon hiring, and annually thereafter on personal safety, chemical management, and proper methods for handling and disposing of waste?			
Do all employees understand storm water discharge prohibitions, wastewater discharge requirements, and these best management practices?			

Stormwater Management Plan

Are training logs or similar methods used to document training?			
Are instructional/informational signs posted around the shop for customers and employees?			

EDUCATION AND TRAINING (CONT'D)	YES	NO	OTHER
Are signs placed above all sinks prohibiting discharges of vehicle fluids and wastes?			
Are signs placed on faucets (hose bibbs) reminding employees and customers to conserve water and not to use water to clean up spills?			
Are drains labeled within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an on-site treatment device, directly to the sanitary sewer, or to a storm drain.			
Are emergency telephone numbers of the wastewater treatment plant and the fire department posted?			
CHANGING OIL AND OTHER FLUIDS	YES	NO	OTHER
Are vehicle fluids changed, whenever possible, indoors and only on floors constructed of non-porous materials?			
Are drip pans used if vehicle fluids must be removed outdoors?			
Are spills prevented from reaching the street or storm drain by working over an absorbent mat and covering nearby storm drains, or working in a bermed area? (Note: If necessary, absorbent socks can be used to create a bermed area)			
When draining fluids into a drain pan, is a larger drip pan (e.g., 3' x 4') placed under the primary drain pan to catch any spilled fluids?			
Are fluids drained from vehicles transferred to a designated waste storage area as soon as possible?			
Are drain pans and other open containers of fluids covered and within secondary containment unless they are attended by personnel?			
Is antifreeze and waste oil stored separately and recycled, or disposed of as hazardous waste?			
Never pour vehicle fluids or other hazardous wastes into sinks, toilets, floor drains, outside storm drains, or in the garbage. These substances should be kept in designated storage areas until recycled or safely disposed of (see Rationale 4 at the end of section).			
Drain fluids from leaking or wrecked vehicles as soon as possible, to avoid leaks and spills.			
CLEANING ENGINES AND PARTS, AND FLUSHING RADIATORS	YES	NO	OTHER
Are discharges from engine cleaning and flushing of radiators prevented from being discharged to the sanitary sewer and storm drains? (Note: A licensed service should be used to haul and recycle or dispose of wastes)			

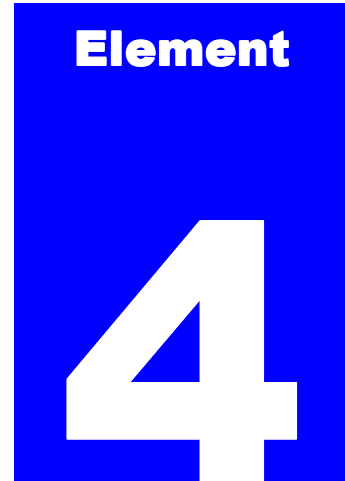
Is steam cleaning of engines done using a closed-loop water recycling system? (<u>Note</u> : No steam cleaning water may be discharged to the sanitary sewer or the storm drain)			
CLEANING ENGINES, ETC (CONT'D)	YES	NO	OTHER
Are specific areas or service bays designated for engine, parts, or radiator cleaning? (<u>Note</u> : Parts should not be washed or rinsed outdoors)			
Are self-contained sinks and tanks used when working with solvents, and are sinks and tanks kept covered when not in use?			
Are degreasing solvent sinks inspected regularly for leaks, and are necessary repairs made immediately?			
Is soldering avoided over drip tanks, and are drippings swept up and recycled or disposed of as hazardous waste?			
Are parts rinsed and drained over the solvent sink or tank, so that solvents will not drip or spill onto the floor, and are drip boards or pans used to catch excess solvent solutions and divert them back to a sink or tank?			
Are parts allowed to dry over the hot tank, and if rinsing is required, is it performed over the tank as well?			
Are parts cleaning solvent solutions and water used in flushing and testing radiators collected and reused, and when reuse is no longer possible, are these solutions disposed of properly?			
Are cleaning solutions used for engines or parts prevented from being discharged into the sanitary sewer system without adequate treatment? (<u>Note</u> : Most facilities have these solutions hauled off-site as hazardous waste because of the permits necessary for on-site treatment. Rinse water may only be discharged to the sanitary sewer after adequate treatment and approval by the local wastewater authority. Wastewater from steam cleaning or engine/parts cleaning should never be discharged to a street, gutter, storm drain, or sanitary sewer)			
WASHING CARS AND OTHER VEHICLES	YES	NO	OTHER
<i>Regular Activity</i>			
If car washing is a central activity of the business, is the wash water treated and recycled?			
Is a vehicle washing area designated, and are cars and trucks washed only in that area?			
Is the "wash pad" bermed to prevent discharges to storm drains and does it discharge to the sanitary sewer after adequate treatment and approval of the local wastewater authority? (<u>Note</u> : An outside wash pad should be covered, or its area minimized to reduce the			

amount of rainwater reaching the sanitary sewer. Consult the local wastewater authority for guidance)			
Are acid-based wheel cleaners and other specialized cleaners prohibited, or if not, are they provided proper treatment before discharge to the sewer? (Note: Consult the local wastewater authority for guidance)			

WASHING CARS (CONT'D)	YES	NO	OTHER
<i>Occasional Activity</i>			
If soap is used in washing, is the wash water collected and discharged, preferably with treatment, to the sanitary sewer, and not discharged to a storm drain?			
Is rinse water from spray-on acid-based wheel cleaners prevented from flowing to a street, gutter, or storm drain?			
<i>Washing New Vehicles</i>			
Are storm drains protected from solvents used to remove protective coatings from new cars? (<u>Note</u> : Discharges of these solvents to the sanitary sewer must receive adequate treatment and approval of the local wastewater authority)			
BODY REPAIR AND PAINTING	YES	NO	OTHER
Whenever possible is body repair and painting work conducted indoors or under cover?			
Are damaged vehicles inspected for leaks when they are received, and are drip pans used if necessary?			
Are hose-off degreasers prohibited from use when cleaning auto body parts before painting? (<u>Note</u> : These should not be used, instead brush off loose debris and use rags to wipe down parts)			
Are dry cleanup methods such as vacuuming or sweeping used to clean up dust from sanding metal or body filler? (<u>Notes</u> : Debris from wet sanding can be allowed to dry overnight on the shop floor, then swept and vacuumed. Liquid from wet sanding should not be discharged to the storm drain)			
Is the use of water to control overspray or dust in the paint booth prohibited unless it is collected and treated before discharge into the sanitary sewer system?			
Are spray guns cleaned in a self-contained cleaner and is the cleaning solution recycled when it becomes too dirty to use? (<u>Note</u> : Never discharge cleaning waste to the sanitary sewer or storm drain?)			
FUEL DISPENSING	YES	NO	OTHER
Are fuel dispensing areas maintained using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills? (<u>Note</u> : Fueling areas should never be washed down unless dry cleanup has been done and the wash water is collected and disposed of in the sanitary sewer system)			

Are underground storage tanks fitted with spill containment and overfill prevention systems meeting the requirements of Section 2635(b) of Title 23 of the California Code of Regulations?			
Except where prohibited by local fire departments are fuel dispensing nozzles fitted with "hold-open latches" (automatic shutoffs)?			
Are signs posted at the fuel dispenser or fuel island warning vehicle owners/ operators against "topping off" of vehicle fuel tanks?			
Responsible party requested to correct any deficiencies noted above? (Include date notice was sent)			
Site re-inspected following corrective action by responsible party? (Include date of re-inspection)			
Deficiencies found to be corrected during re-inspection?			
Further action taken or necessary following re-inspection? (Describe)			

Development Standards



"Form follows function."

--Louis Henry Sullivan

4.1 Introduction

How Salinas develops directly affects the quality of life it affords its citizens. Development practices affect water quality, for better or worse. Increased urban water runoff generated by development can begin a chain of events that includes erosion, flooding, stream channel alteration and the introduction of man made pollutants leading to ecological degradation. The objective of this element is to provide a framework to establish regulatory standards and to provide guidance for sustainable development to protect environmental resources while meeting economic development interests. The bases for this process are the City's land use policies and its Municipal Permit.

The City's General Plan recognizes the dynamic interrelationship between development and resource management. The General Plan contains objectives and policies to promote economic development and to protect natural resources.

Conversion of open space and farmland to urban uses changes the water cycle. When development occurs, the resultant alteration to the land can lead to dramatic changes to the hydrology, or the way water is transported and stored. Designing with nature is a fundamental part of the planning process, however, impervious surfaces and compacted soils associated with development have the potential to increase water runoff and the potential to decrease ground- water infiltration.

Historically, the process of urbanization as well as agricultural cultivation has modified natural watershed and stream ecology by altering the terrain, modifying soil and vegetative characteristics, replacing some pervious surfaces with pavement and buildings and converting natural drainage ecosystems with anthropogenic systems to meet the requirements of the activity or development characteristics. Natural stream channels were often replaced with flood control and/or drainage systems that altered stream channels through straightening, deepening, and paving (Figure 4-1).

Figure 4-1 Changes in Stream Form



Storms that previously, under non-urbanized conditions did not produce runoff can produce significant erosive flows. Increased flow volume and velocity, along with the increased duration of flows exacerbate sediment transport. Agricultural practices associated with irrigated row crop production often mimic urbanized conditions and produce similar spikes in runoff and sediment transport.

These spikes in hydrology and associated urban and agricultural impacts have modified the stream ecology for Gabilan, Natividad and Alisal Creeks as well other unnamed creeks flowing through Salinas; negatively impacting habitat.

Conversely, urbanization can also lower stream flows. With development, water that could otherwise percolate and/or run off from unaltered lands and recharge stream flows are commonly redirected to man-made storm systems thereby altering habitat areas within the natural watershed

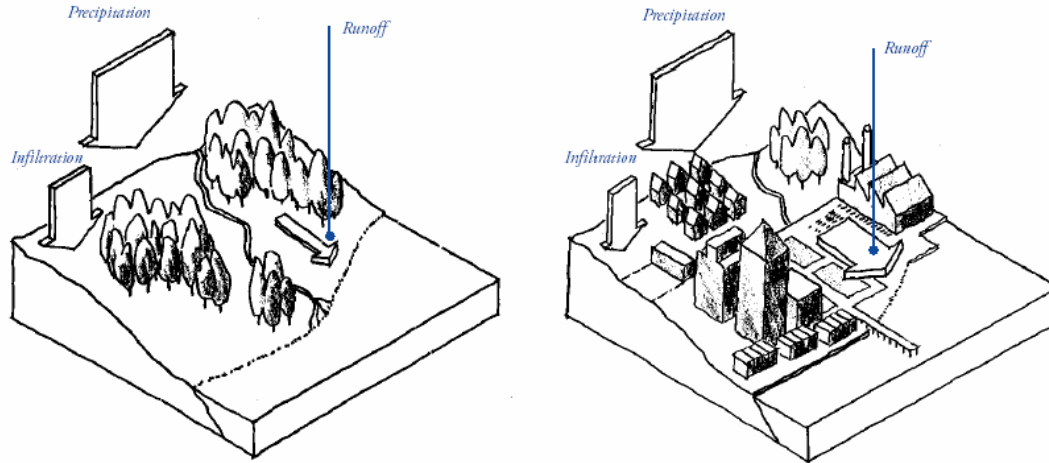
Runoff from urban uses carries with it pollutants from rooftops, roadways, parking areas and other impervious surfaces. Prior to development these either did not exist, or in some cases infiltrated into the soil. As runoff moves over large impervious surfaces, it collects and concentrates nonpoint source pollutants, such as petroleum distillates, heavy metals, and rubber from cars, and roadways. Pollutants carried from these sources enter the waterway further degrading it. Basic urbanization's effects upon the hydrologic cycle from urbanization are further illustrated in Figure 4-2. Similarly, agricultural activities have also introduced pollutants into the drainage environments through the introduction of pesticides, herbicides and fertilizers.

Once altered, natural waterways and associated ecosystems cannot be fully restored. However, the past practice towards declining habitat can be stopped, and partially reversed to preserve ecosystems for the benefit for future generations. This requires a significant and long-term effort dedicated to the preservation and enhancement of existing riparian ecosystems.

Protection of water resources has become more complex. The multitude of stakeholder interests and the variety of regulatory agencies involved make watershed management

and land use planning highly challenging. Recognizing this challenge, establishing a consistent, easily comprehensible approach to watershed management is paramount.

Figure 4-2 Urbanization's Effects Upon the Hydrologic Cycle



The hydrologic cycle

In **pre-development** landforms, a large percentage of precipitation infiltrates into the soil. A small percentage remains on the surface as runoff.

In **Post-development**, opportunities for infiltration are typically reduced, and a larger proportion of total precipitation becomes surface runoff.

The City's Storm Water Management Plan must meet the requirements of the City's NPDES Municipal Storm Water Permit, as summarized by Table 4.1 below.

Table 4.1 Municipal Permit Requirements – Development Standards

Plan Section	Requirement Summary	Municipal Permit Section
Entire	Minimize short and long-term impacts on receiving water quality from development	III a
4.6 D	Incorporate watershed protection principles into planning procedures and policies, e.g. General Plan and Specific Plans	III a I
4.6 A	Minimize amount of impervious surfaces and directly connected impervious surfaces; use on-site infiltration in areas with appropriate soils.	III a 1
4.3	Implement pollution prevention methods supplemented by source controls; use strategies that control sources to minimize their transportation offsite.	III a 2
4.6 A	Preserve, and where possible, create/restore areas important to water quality, such as riparian corridors, wetlands, etc.	III a 3
4.6 A	Limit disturbances to natural drainage systems caused by development	III a 4
4.6 C	Require submittal of pre- and post project pollutant load and flow analyses. Require BMPs to mitigate projected increases in pollutant load runoff	III a 5

4.6 E	Identify, minimize and regulate development in areas particularly susceptible to erosion and sediment loss; or establish development guidance to protect areas	III a 6
4.6 E	Implement source/treatment controls to protect receiving waters from increased pollutant loads from runoff.	III a 7
4.6 I	Control post-development peak storm runoff rates and velocities to protect stream habitat and prevent/reduce erosion.	III a 8
4.6 I	Review and require that all proposed development is in compliance with City codes, regulations, and policies prior to issuing a permit.	III a ii
4.6 D	Prepare and submit for public review a Development Standards Plan (DSP) within 1 year of permit adoption. DSP must be consistent with WQ 2000-11 ¹	III b
4.6 D	Adopt DSP within 1 year of approval	III b
4.6 L	Ensure that all development meeting Municipal Permit criterion are reviewed and conditioned to comply with the DSP.	III c
4.6 O	DSP shall include a list of recommended source and/or structural treatment control BMPs.	III c ii
4.6 D	Ensure that municipal sizing criteria are comparable to Volume- or Flow-based criteria (24-hr, 85 th percentile storm event); flow by 85 th percentile hourly rainfall intensity.	III c iii
4.6 O	Will develop or use equivalent numeric sizing criteria to above	III c iv
4.6 D	DSP shall identify roles and responsibilities of municipal departments.	
4.6 N	Restrict structural BMPs to protect groundwater quality	III c vii
4.6 D	DSP process shall consider measures to control peak storm volumes and rates to protect downstream habitat.	III c ix
4.6 F	DSP shall include a description of necessary modifications to existing codes, etc.	III c x
4.7	Will consider a waiver program	III c e
4.6 L	Require all development subject to DSP provide verification of maintenance provisions.	III f
4.6 I	Incorporate stormwater quality impacts into CEQA processing	III g
4.6 A	Evaluate and amend as necessary General Plan to include watershed quality and quantity management considerations when relevant elements are amended.	III h i
4.6 A	Provide Regional Water Quality Control Board with draft General Plan amendments	III h ii
4.6 P	Annually train City employees engaged in planning and development.	III h i
4.6 D	Make DSP standards available as they are adopted.	III j
4.6 D	Within 1 year of adopting DSP make hardcopy available to development community.	III j ii
4.6 O	Development Standards shall include: a) source and treatment control design criteria BMPs; b) peak flow control criteria; c) expected pollutant removal performance ranges from BMPs; and d) maintenance factors.	III j ii 2, 3, 4

¹ Order WQ 2000-11 is a State Water Resources Control Board precedential action regarding Los Angeles' Standard Urban Storm Water Mitigation Plan (SUSMP). SUSMPs are plans designating BMPs for development projects.

4.2 Objectives

Salinas' objective is to reduce, to the maximum extent practicable, the impacts of new development and redevelopment on storm water and urban runoff through the integration of watershed management principles into the City's land use planning and development activities. To achieve this objective the City has initiated the following actions:

1. Incorporate watershed management and water quality protection principles into its planning processes and development review functions by minimizing impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies. The City of Salinas will accomplish this by adopting low impact development design guidelines and techniques and by providing low impact development training to its design and development review staff a minimum of twice each year.
2. Work with the development community to maximize, to the extent practicable, the development's percentage of pervious surfaces to allow percolation of stormwater and runoff into the ground. City staff will accomplish this by ensuring site plans for development projects incorporate LID strategies (as appropriate) and the minimum amount of impervious surface. .
3. Work with the development community to minimize the quantity of untreated stormwater directed to impervious surfaces and the City's storm sewer system. All projects meeting the minimum development thresholds of the City's Municipal Permit shall incorporate low impact development features.
4. Work with the development community to implement pollution prevention methods as a first approach supplemented by pollutant source controls. If source controls are not practicable then treatment controls will be employed. City staff will require all qualifying development projects to implement pollution prevention features conforming to the City Design Standards and LID guidelines.
5. Preserve and, where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. This will be accomplished by the adoption and implementation of regulations to protect the open space features identified in the City's General Plan.
6. Limit disturbances of natural water bodies and natural drainage systems caused by development, including development of roads, highways and bridges. The City's General Plan has designates these natural features as Open Space and their protection and/or restoration will be assured through the adoption of regulations and implementation of Specific Plans in new development areas.

4.3 Planning and Design Perspectives

Over the past several decades, conventional engineering practice viewed urban runoff and stormwater as a flood control issue. Accordingly, drainage design has focused on concentrating runoff at the site, collecting it, and removing it as quickly as possible. Runoff was typically routed into a pipe and sent to an outfall downstream. This single purpose "end of pipe" approach often did not adequately consider other effects. Broad ecosystem management concerns such as water quality, water supply, habitat

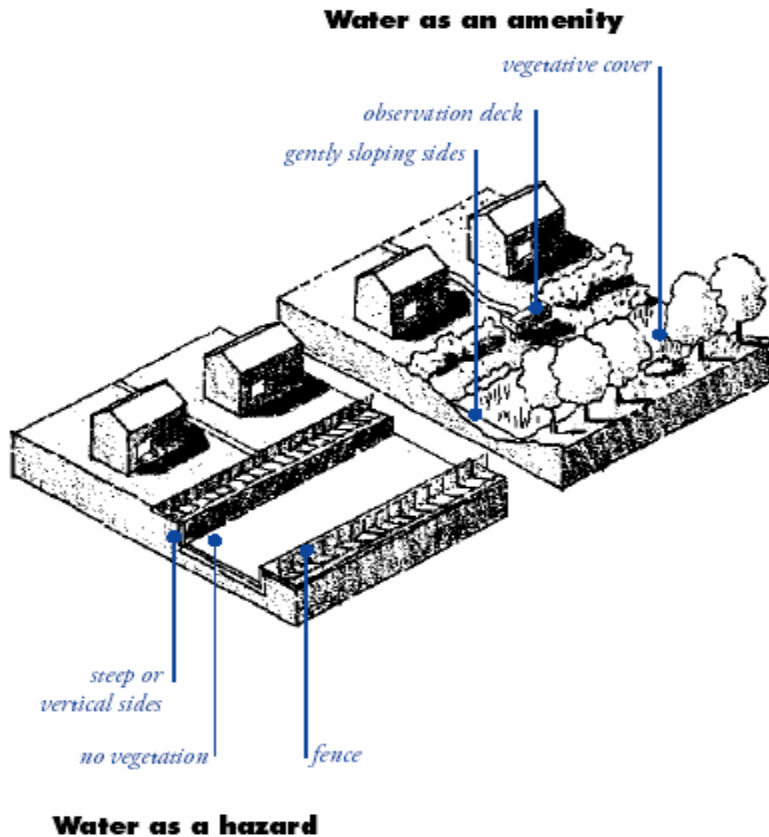
protection, sustainability, and/or community character and aesthetics were often overlooked.

End of pipe drainage solutions tend to transfer what is essentially a private responsibility to a public one. Runoff generated by an individual property owner or developer becomes a public responsibility once it enters the public storm drain system. This “end of pipe” design transfers both the risk and the cost of storm water management to the public. Another consideration not adequately addressed by the end of pipe approach is water supply. In the Salinas Valley where water supply has been an issue for over half a century, and where limited water supplies have the potential to constrain municipal objectives, discarding water that falls freely from the sky is a practice that bears reconsideration.

Growing awareness in professional fields, along with changes to state and Federal regulations offer new solutions and new management practices. Rather than view rainwater and runoff as a hazard, planners and engineers now see rainwater as a resource. Management solutions now avoid end of pipe solutions for source control and low impact development (LID) designs. Source control and LID designs attempt to mimic pre-development hydrologic conditions by managing water runoff on-site, and percolating it into the soil when possible. This results in several benefits: volume and velocity issues are addressed as before and now other beneficial uses: water supply, water quality, habitat preservation, resource management, and community aesthetic and cost concerns are all factored-in.

There is a closer relationship between benefit and responsibility--those that benefit bear the responsibility rather than transferring the responsibility directly to the public. The result is a very different development pattern. Figure 4-3 presents a very generalized representation of development under the old and new paradigms.

Municipal Permit provisions (see Table 4.1) require Salinas to apply watershed protection principles (an integrated, sustainable solution that considers ecosystems and resource protection) and reduce the amount of impervious surfaces. The provisions in this element are consistent with Municipal Permit requirements.

Figure 4-3 Design Outcomes from Different Development Values

Source: BASMAA, Start at the Source (1999)

4.4 Maximum Extent Practicable

In 1987, when it amended the Clean Water Act, Congress recognized that it was not technically feasible to establish similar limits on stormwater pollutants discharged from municipal storm drains. Rather, Clean Water Act Section 402(p)(3)(iii) says that each state "...shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."

“Maximum extent practicable” has been defined by the RWQCB. The Central Coast RWQCB has defined MEP for the City as follows:

“MEP is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with structural and treatment methods where appropriate serving as additional lines of defense. The MEP approach is an ever evolving, flexible, and advancing concept, which considers technical and economic feasibility. For purposes of this Permit, the Regional Board will determine compliance with MEP standards based on the terms of the Permit, including Attachment 4; and State Board decisions or guidance, EPA regulations and guidance and applicable case law defining MEP.” (Salinas Order, Finding 16, 12/23/05 letter to City.)

Salinas’ Stormwater Management Plan incorporates the above understanding of MEP and progressive professional practices (Best Management Practices) to ensure that land use development occurs consistent with NPDES Municipal Permit requirements. Further, this Plan includes the value of continuous improvement to ensure that pollution-prevention efforts achieve maximum extent practicable standard over time.

4.5 Best Management Practices

Best management practice (BMP) refers to any procedure or device designed to minimize the quantity of pollutants that enter the storm drain system, including receiving water bodies. Clean Water Act Section 402(p) and USEPA regulations (40 CFR 122.6) specify a municipal program of “management practices” to control stormwater pollutants. Throughout this Plan, BMPs are included to address the pollutants commonly generated by land use development. Primarily, these BMPs can be viewed three ways: 1) Type (structural or operational), 2) Longevity (permanent or temporary), and 3) Mode (source control versus treatment controls).

In most developments, one classification of BMP will not be sufficient to meet Municipal Permit requirements or protect water quality. Rather, an integrated approach employing more than one class, and a variety of BMPs developed in response to the potential pollutants of concern, site characteristics, project design and regulations will be necessary. Selection of BMPs is therefore flexible based upon several factors. Selection is first up to the project design team’s professional judgment. Second, City of Salinas staff members also have a role to ensure that requirements are met. At minimum, the suite of BMPs selected must meet the criteria established in the City’s NPDES Municipal Permit, this element and other municipal, state and Federal regulations. How the collection of factors are integrated into a project’s design will be described within the development project’s Stormwater Control Plan (see section 4.6).

4.6 Activities

The activities section directs the City to develop, adopt, amend, and/or enforce City policies and practices, regulations and programs to decrease pollution from water and urban runoff. The activities that follow address this objective

A. General Plan

Salinas' General Plan is the City's fundamental policy for land use development. The City's General Plan is not self-implementing. For the City to realize its objectives, implementing strategies must also be enacted. Foremost among these strategies are: 1) zoning regulations, 2) specific plans, 3) subdivision map regulations, and 4) the design standards incorporated into these regulations.

Various elements of Salinas' General Plan guide development to protect natural resources. The land use plan incorporates a number of site and street design policies that relate to water quality and watershed management principles. Indeed, the City's fundamental tenet that shapes the General Plan supports protection of natural resources. This philosophical foundation upon which the City's General Plan is based are the principles of traditional neighborhood development, or "Smart Growth". At its root, Smart Growth principles call for the efficient use of land, and the creation of livable communities. The United States Environmental Protection Agency's Office of Wastewater Management has cited one Smart Growth principle, infill development, as a strategy for mitigating stormwater runoff impacts. Other smart growth principles also serve to protect natural resources, and minimize the amount of public infrastructure (i.e., streets) and sprawl that create impacts

Smart Growth principles value pedestrians while accommodating automobiles and alternative transportation modes to establish the sense of community that one might have found in pre-World War II America. Neighborhoods are organized so many of the residents' daily needs can be accomplished within walking distance from one's home. The objective is to make the community livable through urban design. Streets are lined with stores, rather than the sea of parking that envelope strip malls. Development uses the land efficiently; infill of vacant land is valued, and development is compact. Open space is provided in the form of squares and parks as well as protected watershed resources. To calm traffic speeds, streets are narrower. Residents have multiple choices to navigate the community, including walking, bicycling, public transit, as well as driving. Indeed, development is designed upon multiple transit opportunities.

Many Smart Growth values can be realized through techniques that are directed at protecting water quality and watersheds. Efficient use of land, compact development, emphasis on pedestrian over vehicular travel, proximity of housing to jobs and transit and the integration of open space in land use plans are all designs that integrate well with watershed management, including LID principles.

Salinas will review its General Plan in the first permit year for its effectiveness in supporting the intent and criteria of its NPDES Permit.

B. Specific Plans

Specific plans implement a community's general plan and provide more detailed project information. Prior to approval of development within the Future Growth Area, a Specific Plan will be completed. These Specific Plans are being prepared by multi-disciplined development teams including certified planners, engineers, and landscape architects having state of the art knowledge of effective storm water management techniques. City staff directly involved in the City's NPDES permit and related documents will review and comment on these plans. As part of this process, plans for providing and financing

public services and public facilities will be prepared to demonstrate how adequate levels of public services and facilities will be provided to serve the new development without impacting service levels for the existing community. The City's General Plan, its NPDES Municipal Permit, and provisions of state law guide the preparation of specific plans. The Specific Plans will also be reviewed for compliance under the California Environmental Quality Act which will provide a method of validating that the Specific Plans have incorporated appropriate feature and techniques to assure that the MEP standard is achieved. The City's Future Growth Areas and existing creeks and waterways are shown in Figure 4-4.

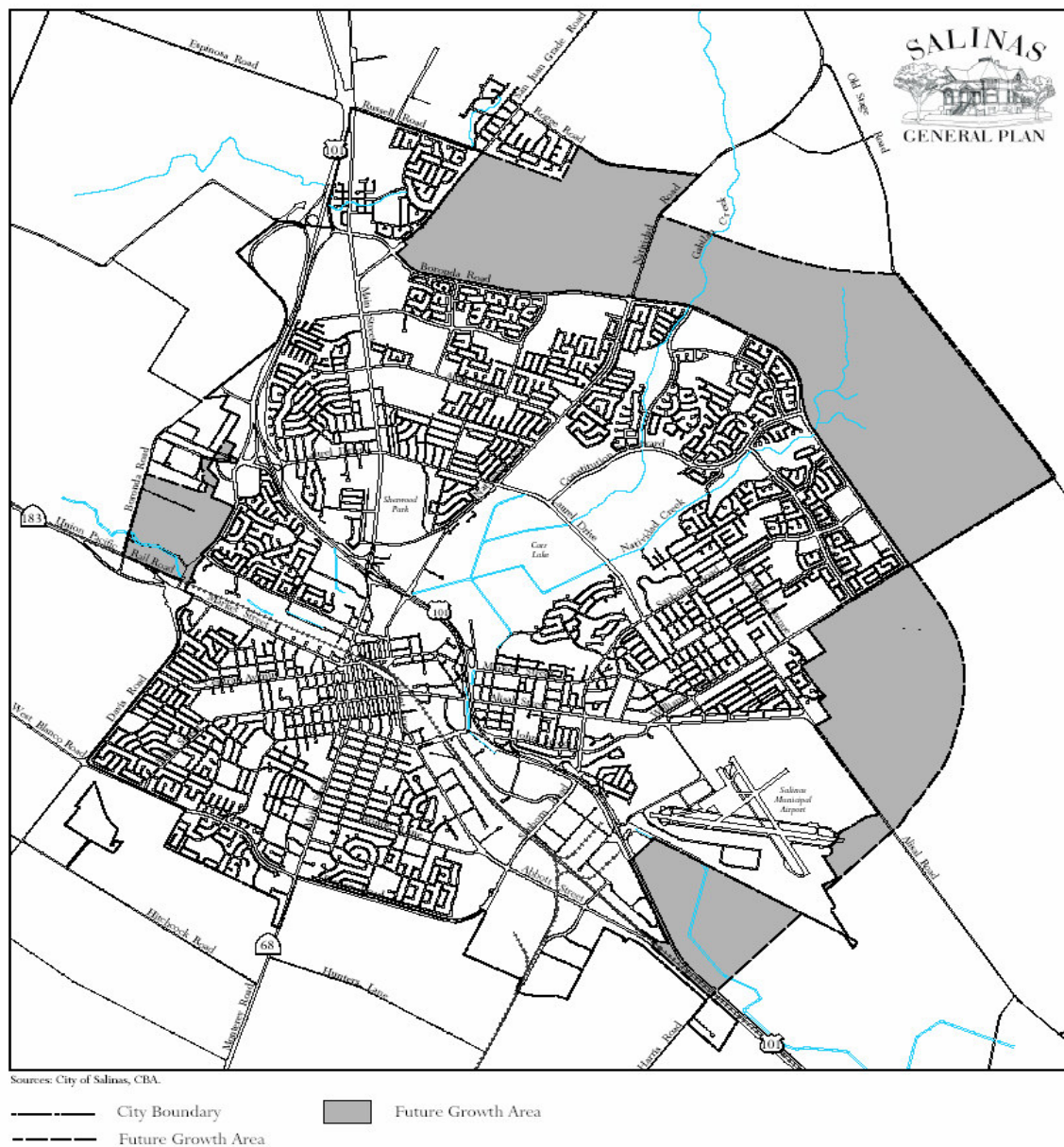
In addition to implementing General Plan policies, specific plans will also address the City's NPDES Municipal Permit requirements to include watershed protection principles and eliminating pollutant discharges to the maximum extent practicable. This will be accomplished with compliance to the pending Salinas Stormwater Development Standards.

It bears noting that the City of Salinas has implemented LID requirements for new development in compliance with the NPDES permit and in advance of the receipt of the development standards plan documents of the RWQCB consultant Kennedy/Jenks. It is known that the implemented standards are consistent with those being prepared by Kennedy/Jenks. As it is expected that new LID Development Standards will mirror policies already in place, much of the groundwork for community adoption of these new standards is already underway.

C. Zoning Code

The Zoning Code will include language to complement the implementation of the City's Municipal Permit requirements. The update to the City's Zoning Code provides for increased floor area ratios (FAR) in all of the commercial and industrial districts, created new mixed-use districts and established a New Urbanism district to implement the tenets of Smart Growth in the City's new growth areas. In addition to these new zoning districts, the zoning code requires specific performance standards regarding development in near proximity to riparian corridors and natural drainage features and increases the required number of trees and landscape area to be included within parking areas. .

Figure 4-4 Future Growth Areas



Kennedy/Jenks has provided recommendations regarding suggested modifications to the zoning code to strengthen LID concepts within it. It is planned that these changes be considered in the fourth year of the permit with other needed modifications revealed with the implementation of the new zoning code.

D. Development Design Standards

A Development Design Standards Plan for LID implementation in new development will be prepared by May 2007. The new Development Standards Plan will be prepared by an engineering consultant to the Regional Water Quality Control Board, Kennedy/Jenks. A recognized expert in the field of Low Impact Development, Kennedy Jenks will assemble the new Development Standards Plan with input from both the City staff and the RWQCB.

In accordance with Salinas' NPDES Municipal Permit, the new Development Standards Plan will provide guidance to the City for LID implementation in new developments, significant redevelopments, and priority category projects. The Development Standards Plan will include:

- LID Introduction and planning techniques
- Disconnect of impervious surfaces
- LID detailed designs and practices
- Numeric sizing criteria for both volume and flow-based control BMPs
- A list of pollutants and activities of concern
- Infiltration testing
- Results of Salinas area soils investigation and LID policy implications
- Restrictions to infiltration devices to protect groundwater quality and infrastructure
- Salinas Planting Zone and Plant Recommendations
- Provisions to address the potential for downstream erosion and degradation of stream habitat
- Recommended source and treatment control BMPs

A public workshop of the Development Standards Plan with the public release of the plan will be conducted by Kennedy/Jenks, sponsored by the RWQCB. Comments received at the workshop and from the public in a 30-day public review thereafter, will be used in drafting the City's Stormwater Development Standards.

Whereas the Development Standards Plan is a guidance document for the City, the Stormwater Development Standards will be a specification and a guidance document for the engineers and designers working on plans for new development. City of Salinas new Stormwater Development Standards will specify the requirements for submitted development plans. The Stormwater Development Standards will include:

- The City of Salinas Building Department process for obtaining a building permit.
- The specifics regarding the stormwater requirements for each type of project
- LID design requirements, LID design details and practices.
- Stormwater hydrology related to LID design and flood control.
- Storm drain and flood control design requirements.
- Requirements of a required Stormwater Control Plan. The Stormwater Control Plan will include:

- A plan of the development showing each drainage area flows and how each drainage area stormwater is managed, and locations of site BMPs.
- A design detail of each BMP, including sizing calculations.
- A narrative regarding design approach for pollutant removal, BMP selection, infiltration and setbacks, and other drainage design issues
- Intended vehicle for site BMP maintenance.

Drafting of the City of Salinas Stormwater Development Standards will occur following the receipt of the final Development Standards Plan. The draft Stormwater Development Standardss will then be submitted to the RWQCB for review. Following approval of the document by the RWQCB, the new standards document will be brought out for public review. Following public review and comment, City staff will revise the stormwater development standards document as needed and then submit to the Salinas City Council for its approval.

Following City Council approval, the new stormwater development standards will become required for all applicable developments

In the City's LID development approach, it is recognized that the use of site biofiltration is a preferred means for treatment of stormwater runoff. Biofiltration is a proven means for treatment of most all constituents of concern for urban runoff is incorporated in site design using engineered grassy swales, elevated planters, bioretention areas, and other landscaping features which are engineered to absorb and filter site runoff. Developers are required to demonstrate hardship regarding problems with implementation of biofiltration BMPs prior to approval of other types of treatment means, in its development plans.

The City's LID approach also calls for disconnection between for drainage for all impermeable surfaces in new development and the city stormwater system. The city's will seek to have all runoff from new development or significant redevelopment parking surfaces, roofs, and other impermeable surfaces drain in and through LID BMPs (such as grassy swales or elevated planters) or source and structural treatment control BMPs prior to entering into the stormwater system.

Given urban runoff pollution concerns occur primarily with the more frequent low rainfall events, the City objective is to have 100% of newly installed flow based BMPs to be sized to handle twice 85th percentile of hourly rainfall intensity (0.11 inches) in Salinas and the volume based BMPs to accommodate the 85th percentile storm event (0.60 inches) in Salinas. This sizing requirement is consistent with the NPDES permit. The RWQCB consultant, Kennedy/Jenks, completed the rainfall precipitation calculations for Salinas. Developers/Engineers are required to show their BMP calculations to demonstrate compliance with these sizing requirements.

The City will informally use BMP designs of the Contra Costa Clean Water Program for its LID program prior to the adoption of the new Stormwater Development Standards. The Contra Costa standards were selected based on their approach to solving issues with impermeable soil types prevalent within its jurisdiction, and similar to the characteristics of Salinas's area soils. It is understood by the City that the Kennedy/Jenks BMPs in its Development Standards Plan document will be very similar.

The City recognizes that stormwater management designs as well as LID techniques are most successful if they are incorporated at the first planning opportunity. Salinas' General Plan seeks to implement sustainable "smart growth" solutions to address its persistent housing shortage and establish neighborhoods having the characteristics of traditional neighborhood development. These neighborhood characteristics have been called "neo-traditional designs" or "Smart Growth". Among others, neo-traditional design values include reducing the dominance of the automobile.

Narrower streets and street trees reduce runoff volumes and lower storm water runoff temperature. In one study, planners found that neo-traditional design resulted in less than 1/3 of the amount of paved street surface per dwelling unit when compared with conventional street designs.² Salinas will apply sustainable Smart Growth features in its future planned growth area.

Figure 4-5 Neo-traditional (Smart Growth) Street Design as a BMP



A typical pre-war residential street



A typical post-war residential street

Techniques to be considered include slowing flow rate and volume to foster percolation; and reducing the amount of impervious surfacing through creative site design. Figures 4-6 through 4-8 provide examples of LID design techniques. Other techniques include: 1) innovative site design that provides multiple functions (mixed use); 2) clustering of buildings to protect sensitive areas; 3) use of concave lawn areas to decrease runoff; and, 5) use of landscaping to disperse roof runoff.

² North Carolina Department of Transportation, Street Design Guidelines for Traditional Neighborhood Design

Figure 4-6 Typical Vegetated Swale Design to Convey Water

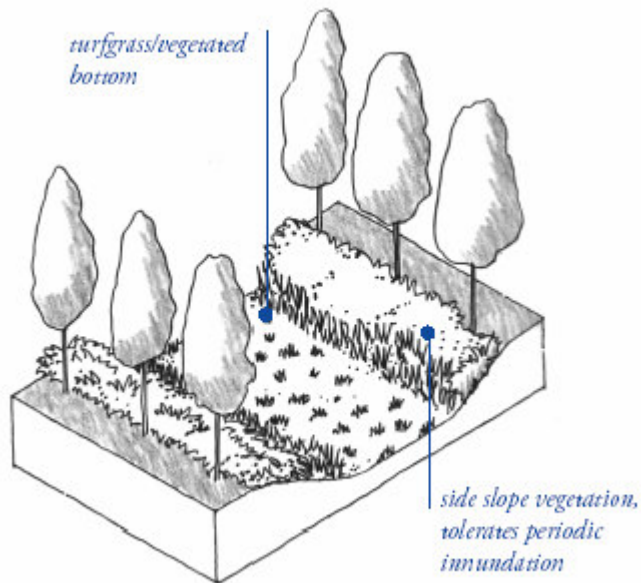


Figure 4-7 Typical Low Impact Design Techniques for Residential Development

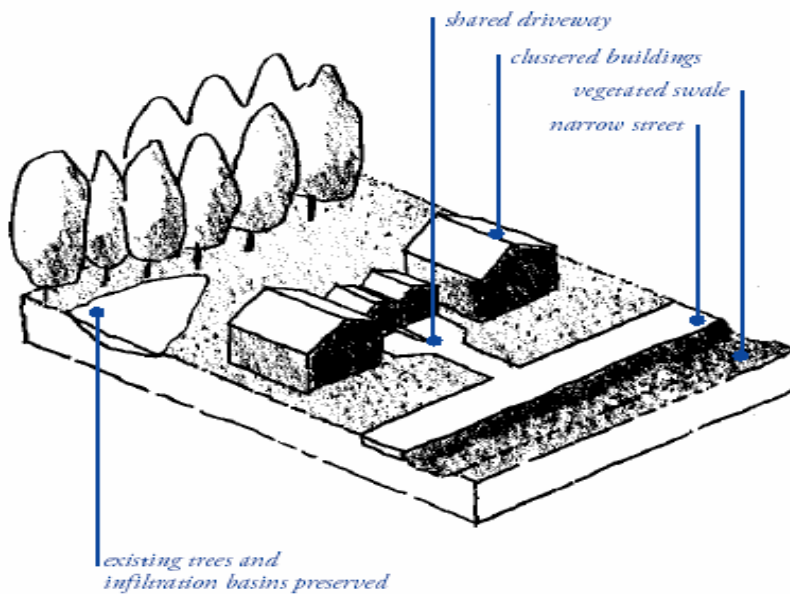


Figure 4-8 LID Site Design Ideas for Multi-Family Housing

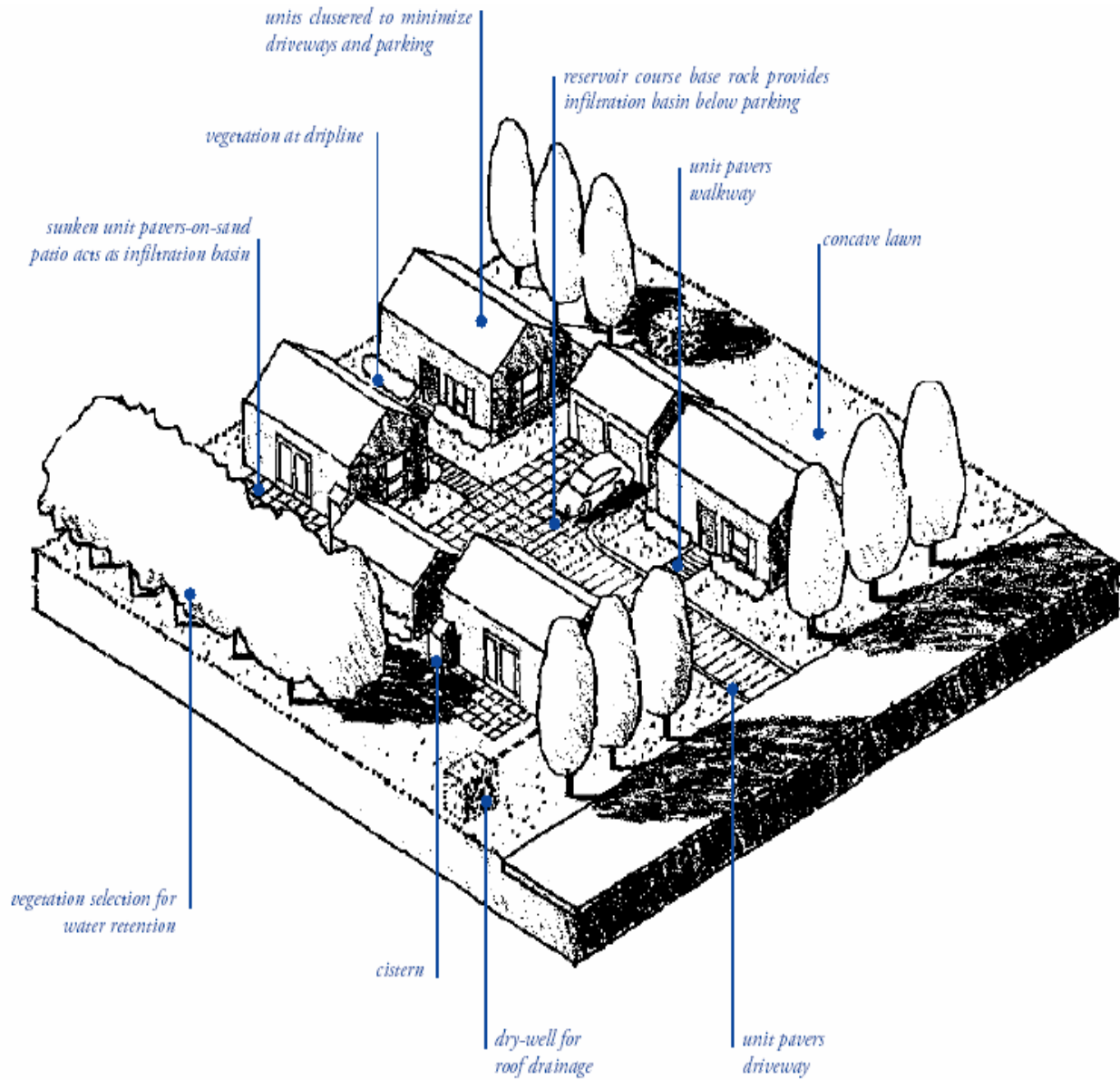
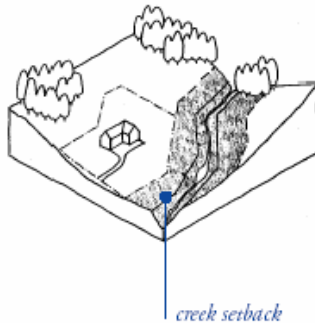
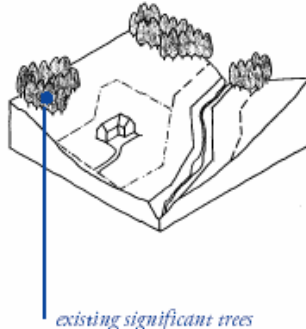


Figure 4-9 Site Design Concepts that Reduce Water Pollution and Erosion

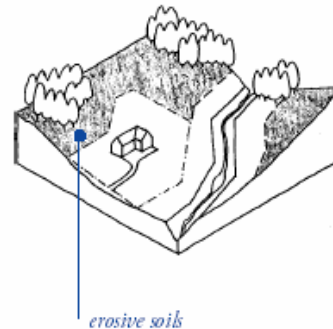
Set back development from creeks, wetlands, and riparian habitats.



Preserve significant trees. Trees protect soil structure, aid in soil permeability, and provide aesthetics.



Avoid erosive soils and slopes. These include steep or long continuous slopes, soils high in silt or fine sand, or soils lacking vegetative cover.



Source: Start at the Source: BASMAA, 1999

F. Grading Standards

Compliance with the City of Salinas Grading Standards is required for all construction in the City and is specifically listed in building permits issued by the City's Building department. Following the RWQCB consultant review of proposed changes to the City's Grading Standards, the City will complete the update to its Grading Standards for compliance with its NPDES permit and pending stormwater development standards.

G. Storm Water Ordinance

Salinas' *Storm Water Ordinance* regulates the City's stormwater infrastructure and management approach to new development.. Salinas is updating its Storm Water Ordinance to reflect its NPDES Municipal Permit requirements and incorporate elements of a model LID ordinance written by the RWQCB and authored by Kennedy/Jenks. A public hearing will be held for the revised Storm Water Ordinance and followed t, with adoption by the City Council.

H. Storm Water Master Plan

The City's *Storm Water Master Plan* is a comprehensive engineering plan of the City's stormwater. It includes an assessment of infrastructure and surface storm drainage and provides recommendations. This plan is separate and distinct from the City's *Stormwater Management Plan*. The *Master Plan* was last updated in May 2004--before adoption of the City's Municipal Permit. As part of the process to review the *Storm Water Ordinance* and other municipal documents, the Regional Board's consultant (Kennedy/Jenks) is

also tasked to review the *Master Plan*. The consultant will submit their review and recommendations/comments. As this report is primarily an infrastructure report for flood control and was recently completed, an update is planned for later in the permit period.

I. California Environmental Quality Act (CEQA)

Under California law, applications for proposed land use projects must be reviewed and a determination established if the proposal is subject to the California Environmental Quality Act (CEQA). If a project requires review under CEQA City staff will typically prepare an environmental assessment called an "Initial Study". Staff completes a checklist that identifies the project's potential for affecting environmental resources. Through the Initial Study process, issues having the potential to degrade the environment, including water quality are identified, as are potential mitigation measures. Mitigation measures to address water quality will include: minimizing impervious surfaces, controlling pollutant sources and incorporating BMPs that retain, detain and or treat runoff. Staff has completed revisions to the City's Initial Study process to incorporate NPDES Municipal Permit requirements.

Specifically, the revised *Initial Study Check* list considers the following potential impacts:

1. Project construction on stormwater runoff;
2. Project post-construction activity on stormwater runoff;
3. Discharge of stormwater from material storage areas, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;
4. Discharge of stormwater that impairs the beneficial uses of the receiving waters or areas that provide water quality benefit;
5. Discharge of stormwater that might cause significant harm on the biological integrity of waterways and water bodies;
6. Significant changes in the flow velocity and/or flow volume of stormwater runoff that might cause environmental harm; and
7. Significant increases in erosion of the project site or surrounding areas.

The City's NPDES permit, city ordinances, and applicable water quality standards are the implied standards for CEQA review.

J. City of Salinas Standard Specifications Document

The City's Standard Specifications document entitled *City of Salinas Standard Specifications, Design Standards and Standard Plans, 2004 edition* document is based on and used primarily in conjunction with the CALTRANS Standard Specification for Construction of Local Streets and Roads. It does, however, also provide specific development design requirements such as flood control and sanitary sewer sizing. The RWQCB consultant Kennedy/Jenks will review and make recommendations for consistency with LID concepts and the NPDES Permit. Planned changes to the City's Standard Specification include the addition of the revised grading standards and moving the flood control and storm drain specifications to the Stormwater Development Standards in order to integrate all stormwater design requirements into one document. For consistency, both the Standard Specifications document and the Stormwater Development Standards will be revised at the same time.

K. Information Brochures

The pending Development Standards Document will provide technical guidance regarding Low Impact Development. The City will also prepare a series of urban runoff pollution prevention information brochures. These brochures will summarize relevant RWQCB and City stormwater requirements and reference web sites for additional information. These will be generally directed toward construction and smaller construction projects. Further, the City will produce and provide an urban water runoff BMP checklist that will guide applicants in selecting BMPs. Lastly, the brochures will guide applicants by describing the various steps in the development process. Information contained in the brochures will be made available at the City's Permit Center, City Hall and through the City's web site.

L. Development Review Process

The City's NPDES Municipal Permit requires new development and significant redevelopment³ to meet specific standards. These include incorporation of stormwater BMPs to protect receiving water bodies. Practices relate to project design, environmental review, permit conditions, and construction management. The first three steps are addressed within this element. Construction BMPs are addressed in element 5 of this Plan. While all development will be required to incorporate BMPs to protect receiving water bodies, certain priority development types (as identified within the NPDES Municipal Permit) will be required to meet design standards as described in Attachment 4 of the City's Municipal Permit. These projects will meet specific design standards and include best management practices to control flow volume, velocity and water quality prior to issuance of any applicable discretionary or ministerial permits.

As defined within the Municipal Permit priority project categories include:

1. All residential developments of 10 units or more;
2. Commercial developments;
3. Redevelopment projects creating 5,000 square feet or more of impervious surfaces;
4. Automotive repair businesses;
5. Restaurants;
6. Hillside development of 5,000 square- feet or more of impervious surface⁴;
7. Certain Parking lots⁵;
8. Streets, roads, highways, and freeways—any paved surface equal to or greater than 5-acres; and,
9. Retail Gasoline Outlets⁶

³ The RWQCB Municipal Permit defines the term "redevelopment" to mean additions or expansions of 5,000 square-feet or more of impervious surface, rather than the more common municipal use of the term "redevelopment."

⁴ Hillside is defined as an area with known erosive soil located in areas with a natural grade of 25 percent or greater slope. At present, there are no areas within the City that meet that criterion.

⁵ Any impervious area exposed to rainfall with 25 or more parking spaces, or with 5,000 square-feet or more of area.

⁶ Any facility engaged in selling gasoline with 5,000 square-feet or more of impervious surface area.

Project BMPs are site and project specific. Therefore, they will vary based upon the project's design and potential impact to urban runoff and receiving water quality. Stormwater BMPs will be required through the development review and approval process.

To determine the most applicable BMPs, applicants proposing "priority projects" shall prepare and submit studies analyzing pre- and post- project pollutant loads (including sediment) and flows resulting from the projected future development. These stormwater studies shall include the implementation of measures to control stormwater runoff to reduce pollutants and hydromodification effects to the maximum extent practicable standard. Incorporating LID measures conforming to those standards will be adopted by the City and relieve the applicant of this analysis.

The stormwater studies and development plans shall specify and document permanent site features and proposed BMPs designed to meet minimum sizing criteria to minimize impervious surfaces, retain or detain stormwater, slow runoff rates, and control pollutants for the life of the project. If structural treatment controls are proposed, sizing calculations shall be included. The analysis shall also address the responsibility for the maintenance of treatment controls and other BMPs in perpetuity. For large projects a maintenance district or equivalent will be required to insure supervised oversight of these maintenance responsibilities and obligations.

The following steps list the generalized process for the stormwater analysis and plan preparation:

1. Define site characteristics, features, topography, etc.;
2. Identify opportunities and constraints;
3. Design to minimize impervious surfaces;
4. Select treatment BMPs;
5. Design BMPs;
6. Specify source control BMPs;
7. Integrate BMPs into other site designs for landscape and drainage plans;
8. Check/resolve permitting code and compliance issues;
9. Plan for BMP maintenance; and,
10. Prepare stormwater control analysis.

A more thorough discussion regarding criteria for numeric sizing is being prepared as part of the City's Low Impact Development Design Standards, which will be released for public review in March 2007

Development processing begins with development review. Submittal of an application for planning and zoning approval begins the first step. Figure 4-10 displays a conceptual process for discretionary projects—those that require discretionary action. For most (ministerial) projects, that is, projects that conform to the City's land use and development regulations, the process is much simplified. These projects are exempt from CEQA processing.

Step I—Staff conduct optional pre-application meeting. This step is advisable for those new to the City's NPDES requirements, or for those with large, complex projects. Staff will review necessary BMPs and discuss design options with applicants, including LID.

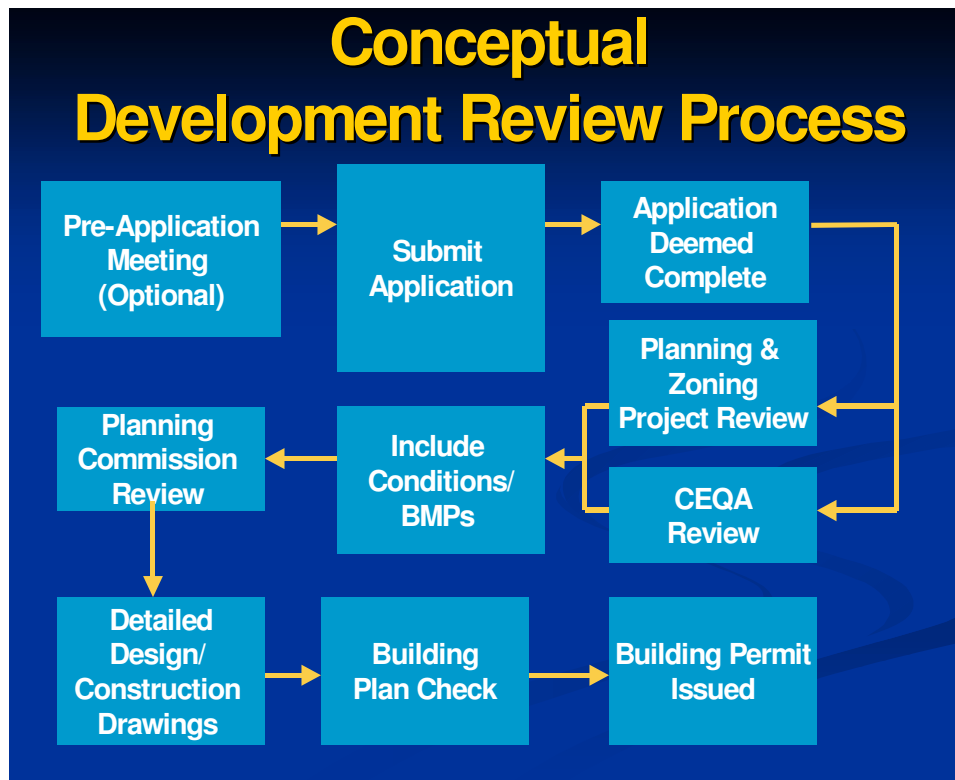
Step II—Applicant submits Development Review Application including plans and stormwater analysis

Step III—Staff determines whether application is complete, including verifying submittal of a stormwater control analysis.

Step IV— Staff reviews proposed development for conformity with applicable regulations. Staff will review the applicant's stormwater analysis as part of the project review.

Step V— Staff is responsible for reviewing proposed development for conformity with local, state and Federal regulations. Staff review of the applicant's stormwater control analysis/plan is conducted at this step. Engineering staff provides comments/conditions related to NPDES requirements.

Figure 4-10 Conceptual Development Review Process



During the review process, staff will solicit comments from other City divisions and departments. Comments from these various municipal disciplines will be considered at a City Development Review Committee (DRC) meeting. BMPs will be incorporated into the project as specifications, project design modifications, conditions of approval or other requirements as appropriate to reduce stormwater impacts to the MEP.

Project applicants will assure the adequacy of the maintenance of stormwater BMPs during construction and throughout the life of the project. Maintenance of treatment and

other urban runoff controls will be the responsibility of the applicant, unless included in a maintenance district. Maintenance methods must be identified in writing and approved as part of the permit prior to permit issuance.

Step VI –During the building plan and construction permit review process staff will ensure that BMPs are carried forth and incorporated into construction drawings and plan specifications.

Step VII – Where substantive revisions to a project have been proposed; staff will re-initiate Step II to ensure revisions meet stormwater requirements. If proposed changes are determined to potentially materially affect surface runoff, further changes to the project design, or amendments to the previously approved permit such as different or additional BMPs as necessary.

M. BMP Selection

Land development design and review must consider many factors: environmental, economic, temporal and other factors in context of the individual project. There is no universal solution to stormwater pollution prevention. Consequently, stipulated conditions, project designs and required BMPs will be established on a project-by-project basis. However, there are categories of BMPs that will be considered given certain shared project traits, or environmental circumstances. This “menu” of BMPs will be incorporated into the City’s Stormwater Development Standards . The new Stormwater Development Standards document will provide the default standard BMPs for which the project engineers will use as a benchmark. As part of the development review process consideration shall be given to watershed protection. While each project will be reviewed individually, project processing will be standardized and uniform water protection principles employed.

Plan review will be conducted consistent with watershed protection values contained with the NPDES Municipal Permit, *Salinas Stormwater Management Plan*, and the *Stormwater Development Standards document*. Further, plan processing will be performed using the development design standards prepared under the NPDES Municipal Permit as the required benchmark. Until the stormwater development design standard requirements are adopted , requirements contained within the NPDES Municipal Permit shall be employed. For example, at minimum, retail gasoline projects shall be required to use BMPs listed in the *California Storm Water Quality Task Force, March 1977 BMP Guide for Retail Gasoline Outlets*. In addition, projects will meet numeric sizing criteria contained within the NPDES Municipal Permit. Upon adoption of the City’s LID development design standards, these will replace the interim standards referenced within the Municipal Permit.

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The City’s focus for protecting water quality will be pollution prevention and site/architectural designs will incorporate pollution prevention BMPs as their cornerstone. Project review will also include the provision of source control BMPs, such as Low Impact Development techniques. Where site design and source control management practices fail to bring the project into conformity with Municipal Permit pollution prevention (quality, volume and velocity) MEP requirements, structural treatment control techniques will be employed. For example, a new supermarket sized shopping center

will be reviewed for how runoff from the building roof and parking areas are treated in low impact development BMPs on site. Calculations will be reviewed to insure proper sizing with all BMPs for each drainage area. If unique conditions exist on a portion of the property, which will not allow for low impact BMP implementation, other types of stormwater treatment will be considered for this application in this portion of the property.

N. Site Planning and Development BMPs

The section that follows lists BMPs by type—site design, rainfall infiltration, etc. Depending upon the project and site location to meet the City's Municipal Permit requirements.

1. Pollution Prevention / Site Design:

The City's Municipal Permit requires specific development categories to reduce pollutant runoff to the maximum extent practicable. Site design BMPs include project design feature that prevents the creation of pollution sources, or reduces the severity of impacts to downstream receiving water bodies to the maximum extent practicable.

The BMPs listed below will be selected, and/or considered in new development. Selection of site design BMPs will be project, site and performance driven, and consistent with the Stormwater Development Standards document. Proponents will select whichever BMPs they determine best meets municipal and state standards, as well as project needs. In cases where certain prescriptive BMPs prove impracticable, other BMPs that similarly meet the Municipal Permit standard of removing project pollutants to the MEP must be substituted.

In addition to the BMPs that follow, goals, objectives and policies from the City's General Plan that protect water resources will also be considered BMPs.

2. The following Smart Growth principles will be considered BMPs:

- a. For projects identified within the City's NPDES Municipal Permit as *priority development projects*, developers will prepare and submit a stormwater control plan that analyzes pre-and post-development project pollutant loads, including sediment, and flows (volume and velocity) resulting from proposed development, and explain how the design will reduce urban runoff consistent with the City's Stormwater Development Standards. A licensed engineer or other trained and licensed professional capable of conducting this study shall prepare this analysis. For all other projects, a simpler Stormwater Control Plan will be required. For applicable projects, , , showing approved and appropriately sized BMPs on a site drainage plan will suffice. These less rigorous documents will not require preparation by a licensed professional, however, City staff trained by a licensed engineer or other trained and licensed professional shall determine the adequacy of the submitted Stormwater Control Plan
- b. The following planning principles will be considered during the preparation of the Stormwater Development Design Standards:
 - i. Reducing street width areas as authorized by the City's Traffic Engineer and Fire Chief.

- ii. Include sunken landscaped islands in street designs.
- iii. Reduce future parking lot sizes/requirements by encouraging shared parking as appropriate and as provided for in the Zoning Code Update.
- iv. Providing incentives for opportunities for structured parking (multi-level) rather than surface parking.
- v. Include porous pavers and/or porous pavement in parking overflow areas.

O. Required Development or Post-construction BMPs

Site Design BMPs: (Specifics to be identified in the Development Standards Plan)

Minimize Impervious Areas

- Incorporate Smart Growth (traditional neighborhood development) principles and design concepts that implement Salinas' General Plan;
- Develop streetscapes that minimize impervious surfaces and maximize tree canopy to the greatest extent feasible by requiring landscaped setbacks in accord with zoning standards;
- Incorporate landscape buffer areas between sidewalks and streets;
- Avoid residential cul-de-sacs and incorporate landscape areas into street sections wherever possible;
- Increase building density while decreasing building footprints;
- Use cluster development that incorporates smaller lot sizes and maximizes open space; and,
- Reduce overall lot imperviousness by promoting alternative driveway and parking lots surfaces and designs.

Increase Rainfall Infiltration

Direct runoff from rooftops and hardscape to landscape areas; avoid routing runoff to the roadway or the urban runoff conveyance system;

- Use permeable materials for private sidewalks, driveways, parking lots, and interior roadway surfaces, while ensuring compliance with ADA/Title 24 access requirements; and,
- Where soils percolate freely, consider infiltration designs.

Maximize Rainfall Interception

- Maximize canopy interception and water conservation by preserving native and existing vegetation, especially trees, and by planting low water using street trees, and large shrubs;
- Encourage the use of cisterns/rain barrels to retain rainfall for later landscape irrigation; and,
- Design landscape areas to receive roof and surface drainage.

Minimize Directly Connected Impervious Areas

- Drain rooftops into adjacent/nearby landscape areas prior to discharge into storm drain;
- Drain parking lots into landscape areas that serve also as bio-filtration areas; and
- Drain roads, sidewalks and paths into adjacent landscaped areas rather than directly into the street.

Slope and Channel Protection

- Use natural drainage systems to maximum extent practicable;
- Stabilize permanent channel crossings;
- Select native, indigenous or water-thrifty plants appropriate for the local ecosystem with deep root structures for slopes; and
- Use energy dissipaters, such as river stones or riprap; at drain outfalls of new storm drains, culverts, conduits, or channels that enter other unlined channels.

Source Control BMPs

- Use/encourage sustainable building design, including low impact development (LID)
- Use water-thrifty landscape designs with efficient irrigation systems, such as drip systems, rather than spray, to eliminate runoff.

Treatment Controls BMPs

Bio-filters

- Grass swales;
- Grass strips;
- Vegetated swale; and
- Bio-retention.

Detention / Retention Basins

- Extended/dry detention basins with drought tolerant grass linings as part of larger system that infiltrates water, such as source control and green site design;
- Retention basin; and
- Catch basin screens.

Infiltration Basins

- Infiltration basin;
- Infiltration trench;
- Porous concrete;
- Porous modulate concrete block; and
- Wet ponds.

Drainage Inserts (lower priority)

- Oil/Water separators;
- Catch basin inserts; and,
- Storm drain inserts.

Filtration Systems

- Media filtration; and,
- Sand Filtration.

Continuous Flow Deflection/Separation Systems

- Swirl Concentrator;
- Vortex-type inlet use at final site discharge point.

Table 4-2 displays a comparison of the effectiveness of various treatments at removing common pollutants of concern.

Table 4.2 Treatment Control Performance

BMP Performance												
Constituent Performance												
BMP Type	BMP	Coarse Sed.	Fine Sed.	N03	TN	TP	Pb (T)	Zn (T)	Cu (T)	Pathogens	Oil and Grease	Trash and Debris
Detention Basins	Wetponds	X	X	#	O	O	X	X	O	O	NR	X
	Extended Wetponds	X	X	O	O	X	X	X	X	O	NR	X
	Extended Drypond	X	O	#	O	#	O	O	O	#	NR	X
Water Quality Wetlands	Shallow Wetland	X	X	O	#	O	O	X	O	X	NR	X
	Extended Detention Wetpond	X	X	O	#	O	O	X	O	X	NR	X
Good X Fair O Poor # NR: Not recommended for treating this parameter without pretreatment due to high probability of system impairment Source: GeoSyntec Consultants, 2002; Santa Clara Valley Urban Runoff Pollution Prevention Program												

BMP Performance (continued)												
BMP Type	BMP	Constituent Performance										
		Coarse Sed.	Fine Sed.	N03	TN	TP	Pb (T)	Zn (T)	Cu (T)	Pathogens	Oil and Grease	Trash and Debris
Biofilters (horizontal)	Bioswale	X	O	#	O	O	X	O	O	#	O	O
	Filter Strip	X	O	#	O	O	X	O	O	#	O	O
Filters (vertical)	Sand Filter	X	X	#	O	O	X	X	O	O	X	X
	Media Filter	X	X	#	O	O	X	X	X	O	O	NR
	Bioretention	X	X	#	X	X	X	X	X	#	X	NR
Solids Separator	Rotational Flow	X	O	#	O	O	O	O	O	#	X*	X
	Multi-Chamber	O	#	#	O	#	O	O	#	#	O	X
Inserts	Catch Basin Insert **	X	O	#	O	O	O	O	O	#	X*	X
Good X Fair O Poor # NR: Not recommended for treating this parameter without pretreatment due to high probability of system impairment. * Assumes that sorbent is placed in sedimentation chamber ** The San Francisco Regional Board staff does not recommend the use of this BMP as it feels that it is ineffective. Source: GeoSyntec Consultants, 2002; Santa Clara Valley Urban Runoff Pollution Prevention Program												

P. Outreach, Education and Training

Consistent with its Municipal Permit, Salinas will annually conduct a multi-faceted education program. The program will include staff training, targeted education and community outreach. Training will include broad-based topics, such as Municipal Permit requirements and the Clean Water Act, as well as specific information about procedures and BMPs. For the first two years of the Municipal Permit the City will focus on training staff and educating the development community. During the third year of the permit term, City staff will continue to conduct broad outreach to the general public.

LID concepts will be featured in a minimum of three public workshops conducted by Kennedy/Jenks. As Kennedy/Jenks is the engineering consultant responsible for the new development standards document will also be explained.

Outreach, training, and educational efforts will be conducted and managed by an interdisciplinary team. Topics will include basic watershed management theory, potential environmental/water quality impacts regarding development, and an overview of the City's Municipal Permit.

All staff involved with aspects of project management, project and/or environmental review, or development policy formulation/implementation will be provided annual training on existing and emerging designs and techniques to protect water quality and limit impacts. Among other practices, smart growth principles, sustainable development, low impact development techniques, and proven BMPs will be presented. Training will range from formal workshop presentations and guest speakers, to informal "brown-bag" sessions, web-based presentations and individual research. As knowledge of BMPs evolve, municipal divisions and individual staff will keep current by holding brief division meetings and assimilate information into a reference library. Annual training will ensure that City staff are kept current and knowledgeable of Municipal Permit, *Stormwater Management Plan* and other requirements, and are effectively implementing them.

In the first and second years of the permit term, staff will support three RWQCB sponsored Low Impact Development workshops for the development community. This session will include a summary of the Municipal Permit and its effects upon development processing. This session will be conducted in conjunction with staff training and key issues and new requirements will be presented. In conjunction with LID standards preparation, the City will conduct a series of outreach sessions with the broad community. Additional public meetings (public hearings) will be held with the Planning Commission and City Council when these standards are considered for adoption. Once standards are adopted, City staff will produce an information brochure that summarizes new regulations.

As the City's Stormwater Management Plan changes in response to the City's NPDES Municipal Permit requirements and other factors, staff will prepare updates to the City's information brochures outlining new BMPs. Upon adoption of the LID Development Standards, an informational brochure will be printed that summarizes new requirements. The City will also post relevant information on its web site.

4.7 Program Effectiveness

Table 4.3 summarizes BMPs for Development Services and lists the associated measurable goals for each BMP. Salinas will employ direct means to assess the City's stormwater management program's effectiveness in implementing LID. Program effectiveness will be gauged by how well each measureable goal is met.

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III a. Incorporate water quality and watershed protection principles requirements into planning procedures and policies.	Revise City of Salinas Storm Water Ordinance to comply with the February 2005 NPDES Permit and low impact development (LID) concepts.	Submit draft revised Stormwater Ordinance to RWQCB staff for review and comment. Merge approved ordinance with recommended stormwater LID ordinance from the RWQCB and its consultant Kennedy/Jenks, City staff to submit for City Council review and approval.	1 2	Submit to City of Salinas Council in June 2007	4.6G
	Revise City of Salinas Grading Ordinance to comply with the 2/2005 NPDES Permit and low impact development concepts.	Submit draft revised Ordinance to RWQCB staff for review and comment. Upon approval from the RWQCB and its consultant Kennedy/Jenks of its recommend stormwater Low Impact Development City staff to submit for City Council review and approval.	1 2	Submit to City of Salinas Council in June 2007	4.6F

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III a. Incorporate water quality and watershed protection principles requirements into planning procedures and policies.	Update the of the City Zoning Code	New Urbanism district to implement the tenets of Smart Growth in the City's new growth areas. In addition to these new zoning districts, the zoning code will require specific performance standards regarding development in near proximity to riparian corridors and natural drainage features and will increase the required number of trees and landscape area to be included within parking areas.	1	City adoption of new Zoning Code in 2006 Consideration of Kennedy/Jenks comments with next revision anticipated to occur in 2008	4.6C
	Revise City of Salinas Standard Specifications, Design Standards, and Standard Plans to incorporate water quality concerns	Following receipt of Kennedy Jenks review, revise City of Salinas Standard Specifications, Design Standards, and Standard Plans to incorporate stormwater runoff quality and LID concerns	3 4	Complete revision and adoption in December 2007	4.6J

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III a. Incorporate water quality and watershed protection principles requirements into planning procedures and policies	Revise other City of Salinas codes, ordinances and standards to insure compatibility with NPDES program and 2005 permit	City to plan changes to these documents following receipt of RWQCB –Kennedy/Jenks review City of Salinas Codes, Ordinances, and Standards.	3	Submit to RWQCB plan for revision of other codes, ordinances 30 days following receipt of RWQCB- Kennedy/ Jenks Memorandum.	4.6C
	Plan Low Impact Development approach for City's future growth area.	Meet with staff and/or development groups to discuss LID issues and BMP design.	1 2 3 4 5	Meet at least quarterly.	4.6D
		Review City Future Growth Area specific plans for consistency with smart growth and LID requirements.	3 4 5	100% specific plan compliance	4.6D
III b. Development Standards Plan	Develop a Low Impact Development Standards Plan for new development and significant redevelopment projects	Support development of LID Standards Plan meeting the requirements of the permit by the RWQCB consultant Kennedy/Jenks.	1 2 3	Support the completion of the Development Standards Plan by 7/12/07	4.6 D

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III b. Development Standards Plan	Implement public review of Development Standards Plan for public input and consideration	In conjunction with RWQCB sponsored public workshop on new LID Development Standards Plan, open a public review period in Salinas with a website posting of the Plan.	3	Workshop and comment period start the week of 7/12/07	4.6 D
	Development of a Stormwater Development Standards f	Following public comment from local and state input on the Development Standards Plan will be suitably revised. City staff will draft the Stormwater Development Standards to the RWQCB.	3	Six months following the receipt of the final Development Standards Plan	4.6 D
	Public Review of the draft Stormwater Development Standards	Following RWQCB approval of the draft Stormwater Development Standards, host a workshop for the new standards and post for public review	3	Within one month of the RWQCB approval of the draft Stormwater Development Standard	4.6D
	Adoption of Stormwater Development Standards	Following public comment, submit to the City Council for approval the Stormwater Development Standards	4	Within 60 days of the end of the public comment period	4.6D

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III b. Development Standards Plan	Revision of the 2004 Standard Specifications	Concurrent with the adoption of the Stormwater Development Standards , the City' Standards, Specifications will be modified for consistency with the Stormwater Development Standards and other desired changes, including addition of the revised grading standards	3 4	To be completed with the City's formal adoption of the Stormwater Development Standards	4.6 J
	Update of Stormwater Development Standards	Annual review of the Stormwater Development Standards for addendums and modifications for the first two years of implementation.	4 5	To be completed annually following the City formal adoption of the Stormwater Development Standards	4.6 D
III c. Plan Review	Ensure all new developments and significant redevelopments are reviewed and conditioned for compliance with the approved Development Standards	Initiate compliance with NPDES permit requirements for new developments in advance of the approved development standards. City to use draft standards, approved standards from other jurisdictions in the state and permit sizing criteria.	2 3	100% of applicable site plans reviewed for compliance	4.6 B 4.6 L 4.6 M 4.6 N 4.6 O

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III c. Plan Review		Review all applicable new development and significant redevelopment plans for compliance with the Development Standards Plan, until the Stormwater Standards are approved. Emphasis will be on sizing criteria and BMP design.	3 4 5	100% of applicable site plans reviewed for compliance	4.6 B 4.6 L 4.6 M 4.6 N 4.6 O
III d. Regional Storm Water Mitigation Plan	Review the concept of a regional or sub-regional storm water mitigation plan in the watershed context	Review the concept of a regional or sub-regional storm water mitigation plan as a supplement to the Development Standards Plan for the City's Stormwater system. Work with the County on water quality issues.	4 5	Letter report to RWQCB by year 5 of the possibilities of other water quality possibilities in the City.	
III e. Waiver Program	Formation of a waiver program	In conjunction with the implementation of the Stormwater Development Standards, formulate a waiver program . . .	3 4 5	Submit to the RWQCB a plan for a waiver program in conjunction with the Stormwater Development Standards	
III f. Maintenance Agreement and Transfer	Review and implement means for maintenance agreements for new developments and devise criteria for	Focusing on the City's future growth area, staff to investigate	3 4	100% of future growth area be covered under	4.6 O

Table 4.3 Summary of Best Management Practices
Development Standards Element

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	maintenance agreements for infill projects.	and devise means to insure long-term maintenance of post construction BMP's. City will devise criteria for acceptance of maintenance agreements for infill projects.		means to insure long term maintenance of stormwater BMPs 100% of new infill and significant redevelopment in the City to have acceptable maintenance agreements in place with new occupancy.	
III g. CEQA	Incorporate into the City's CEQA process consideration for potential stormwater impacts.	Revise City CEQA review policy to incorporate review of potential stormwater impacts.	1	Revise CEQA policies by 2006.	4.6 I
III h. General Plan Update	Review the City General Plan for consistency with the NPDES Permit	Evaluate the General Plan for watershed and stormwater quality and quantity management.	1	Review General Plan in the first year of the 2005 NPDES permit	4.6 A

**Table 4.3 Summary of Best Management Practices
Development Standards Element**

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III i. Targeted Employee Training	Provide Training for City employees involved in development planning and design.	Training will be provided in the first two years of the Program will focus on the NPDES program requirements and the concepts of Low Impact Development, and stormwater quality concerns. Use of webcasts, seminars, and staff led training. Scheduled APWA and ASCE webcasts are planned for training and well as staff orientations.	1 2	Annual Training of all employees involved in development planning	4.6 P
		In the following years, training will be focus more on the requirements and details regarding the development standards document, especially the application of BMPs in stormwater treatment. Those reviewing development plans will receive more frequent training in order to them to provide guidance to the general public regarding LID development compliance.	3 4 5	Those employees involved in review of development plans to have a minimum of two training activities per year	4.6 P

Table 4.3 Summary of Best Management Practices
Development Standards Element

Overall Goal: Minimize short and long-term impacts on receiving water quality from new development and significant redevelopment.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
III J. Technical Guidance and Information for Developers	Promulgate technical guidance to the development community regarding Low Impact Development.	Salinas will maintain its website with the latest version of the Development Standards Plan to provide ready availability to the public. Staff plans review personnel to be available to provide guidance for all involved in development. Workshops for review of Low Impact concepts and Development Standards are planned.	2 3 4 5	Provide LID information to 100% of all interested general public members.	4.6 P

Construction Site Management

Element

5

"How can any civilization survive if most of its forest had been removed, its soil washed away, its cropland salinized, its water and air polluted, its cities become crowded, unsafe and subject to disease..."

*Pan's travail, Environmental Problems of the ancient Greeks and Romans
--J. D. Hughes*

5.1 Introduction

Building construction activity is a dynamic process where unexpected events are common. Weather conditions, altered drainage, discrepancies between planned and as actual grades, financing, and unforeseen construction requirements and other variables combine to make construction sites management challenging. Consequently, construction sites create special water runoff management concerns. Urban water runoff BMPs¹ for construction sites are usually temporary measures that require frequent maintenance, adjustment and monitoring to ensure effectiveness.

When urban water runoff and rainwater (called stormwater) drains from a construction site, it can carry sediment, and other pollutants that can damage riparian ecosystems, and degrade downstream waterways. According to the 1996 National Water Quality Inventory, stormwater runoff is a leading source of water pollution. The U.S. Environmental Protection Agency (EPA) estimated that nationally 20 to 150 tons of soil per acre is lost annually to stormwater runoff from construction sites.

Controlling erosion can significantly reduce sedimentation and mitigate damage from other pollutants transported by runoff during construction. To protect Salinas' water and other resources, the City issues permits to construction site owners or the operators to minimize or reduce water pollution during and after construction.

¹ See CRWQCB Order Number R3-2004-0135 NPDES PERMIT Number CA0049981, Attachment 1 – List of definitions this and other acronyms

Site owners (and their construction operators) must also meet General Permit Construction requirements under the National Pollutant Discharge Elimination System (NPDES) program. As part of the application process for projects one acre in size or larger, owner (and operator) must prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) that documents how they will control their site's stormwater. Erosion and sediment control (ESC) may be contained within the SWPPP, and must be included within the Project Schedule. The SWPPP, and other General Permit² requirements are administered at the local level by the City of Salinas, and integrated into its Building, Encroachment, Subdivision and Grading Permit processes.

5.2 Construction Site Management Element Goal / Requirements

The City's goal through this element is to protect water resources by reducing or eliminating pollutants entering the City's Municipal Separate Storm Sewer System (MS4) and receiving waters. Element 5 is one aspect of the City's comprehensive approach to managing its natural resources. The City's Municipal Code, General Plan, Grading Standards and Stormwater Ordinance administer the management of construction activities. Another document that governs municipal actions is its National Pollutant Discharge Elimination System Municipal Permit (NPDES Permit, or simply Municipal Permit) issued by the CRWQCB. NPDES Permit requirements can be found at the following web site:

<http://www.ci.salinas/PubWrks/MtcSvc/StormWater-NPDES/Attachment4-SWMPRevisionReqs.pdf>. Requirements imposed by the CRWQCB mandate the City to take a series of actions. Mandated activities related to construction are summarized in Table 5.1 on the following page.

This element focuses on three principal goals. The first is to develop regulations and performance standards including incorporation of these regulations and standard operating procedures into daily practice, beginning with the site planning process and extending through the completion of construction. Revision of the Grading Standards is an example of a such a regulatory and performance standard upgrade. The second goal is to train staff and inform the public about new regulations, standards and procedures. The third goal is to ensure program effectiveness through management and enforcement.

Since receiving its Municipal Permit, the City has begun updating its two primary construction related requirements: its Grading Standards and its Stormwater Control Ordinance. Adoption of these requirements will take place during the third year of the permit term. Implementation of these will improve municipal effectiveness in minimizing construction impacts.

The City's training and education goals will be achieved through a variety of programs described later in this element. The City's program effectiveness goal will be accomplished through trained staff actively managing programs, and reporting results. Annually, the City will prepare and submit an evaluation report of Construction Site Management Element's effectiveness and goal attainment. This report will document results, comparing them to goals and benchmarks. Documentation will be included in the City's Annual Report to the CRWQCB. Implementation is an iterative process with conclusions from the previous year shaping programs for the following year. Attainment

² NPDES Permit Number CA0049981

of program goals will also be achieved through meeting City objectives. Section 5.3 Objectives are guides to City day-to-day practices and, in many cases, serve as requirements for development. Other BMPs are discussed later in this element.

City departments responsible for conducting inspections, include Development and Engineering Services and Maintenance Services Department. These inspections will ensure that adequate Best Management Practices (BMPs) are installed and maintained for all private and public construction projects.

Table 5.1 NPDES Permit Requirements - Construction Site Management Element

Permit Section	Summary Requirements	Plan Reference
OD.1.a.i.	Comply with the Order, including all Attachments, the SWMP, and any approved modifications	5.2
OD.1.a.ii.	Coordinate with Internal Departments and Outside Agencies	5.2
A4.II.	Develop & Implement Construction Site Mgmt Program	5.3
A4.II.a.	Projects >1 ac: require Submittal of WDID#	5.4
A4.II.a.i.	Control sediment using source control and structural BMPs	5.3
A4.II.a.ii.	Retain construction-related materials at project site	5.6 A
A4.II.a.iii.	Contain unauthorized non-storm water at project site	5.6 A
A4.II.a.iv.	Control erosion from slopes with source control and other BMPs	5.6 A
A4.II.a.	Require submittal of SWPPP to City of Salinas	5.4
A4.II.a.iv.	Meet CRWQCB San Francisco Bay Region Erosion and Sediment Control Field Manual Requirements	5.4
A4.II.b.	Inventory active construction projects	5.4.B
A4.II.b.	Develop and implement an effective tracking system	5.4 B
A4.II.b.	Update Construction and Grading Projects Inventory as new projects are submitted	5.4 B
A4.II.c.	Implement Construction BMPs, or provide justification with SWPPP	5.6 A
A4.II.c.	Stabilize construction exit (sometimes referred to as "construction entrance")	5.6 A
A4.II.c.	Schedule grading operations to minimize exposed, and unprotected, graded areas during wet weather season	5.4 F
A4.II.c.	Implement downstream sediment controls	5.6 A
A4.II.c.	Implement concrete washouts	5.6 A
A4.II.c.	Implement storm inlet protection	5.6 A
A4.II.c.	Implement Slopes/Channel Protection	5.4
A4.II.c.	Implement good housekeeping practices at site	5.6
A4.II.c.	Prepare & distribute construction site BMPs brochure	5.8
A4.II.d.i.	Require proof of NOI submittal prior to permit issuance	5.4
A4.II.e.	Inspect all active construction sites once/month during wet season	5.4 F
A4.II.e.	Inspect all Active construction sites once every other month during dry season	5.4 F
A4.II.e.	Inspect high priority sites (>5 AC@min) once/week during wet season	5.4 F
A4.II.e.	Establish criteria for high priority sites in SWMP	5.5
A4.II.e.	Inspections to include: BMPs, sediment controls, and records keeping	5.5
A4.II.f.	Develop ordinance, and enforce regulations	5.7

A4.II.f.	Prepare escalating enforcement ordinance/policy with sanctions	5.7
A4.II.g.	Refer construction noncompliance orally to CRWQCB within 5 business days	5.7
A4.II.g. & 4.IV.h.	Refer non-filers (General Construction Permit) to CRWQCB, in writing, within 10 business days	5.7
A4.II.h.	Train plan check employees on development plan check and inspection issues	5.3
4.IV.e.	Train inspectors of commercial and industrial facilities	5.3
4.IV.h.	Refer (orally) non-filers to CRWQCB within 5 business days	5.7
4.IV.h.	Refer non-filers needing NOI or WDID # to CRWQCB within 10 business days	5.4
4.IV.i.	Provide annual training for commercial/Industrial inspections	5.4 D
A4.V.g.	Annually inspect City of Salinas owned facilities/activities and train inspectors	5.8
A4.V.g.	Record all inspections (database, photos, checklist, etc.)	5.7
4.VI.c.	Maintain record of drive-by inspections	5.3.f
4.VII.g.	Conduct small construction outreach (<1 ac)	5.3.a
4.VII.g.	Prepare and distribute construction brochure of BMPs consistent w/ NPDES Permit	5.8

5.3 Construction Objectives

1. Minimize clearing and grading. Clearing and grading should occur only when necessary to build and provide access to structures or infrastructure.
2. Protect waterways and stabilize drainageways. All natural waterways within a development site should be clearly identified before construction activities begin.
3. Stabilize exposed soils by seeding, hydro-seeding and/or other such practices as soon as practical.
4. Protect steep slopes and cuts. There are few steep slopes in Salinas; but wherever possible, clearing and grading of existing steep slopes should be avoided. Where clearing cannot be avoided, erosion and sediment control practices should be immediately implemented to prevent runoff.
5. Install perimeter erosion and sediment control elements to retain sediment-laden runoff before it leaves the site.
6. Employ sediment-settling controls. Sediment basins can be designed to improve trapping efficiency through the use of design “traps” and lessening overland velocity.
7. Ensure City of Salinas staff members involved in project review, permit approval, and construction inspection are provided comprehensive training on storm water pollution prevention—(theory and practice). Also ensure that contracted consultants and construction industry professionals are adequately educated on urban water pollution prevention regulations, BMPs, NPDES Permit, as well as other requirements/techniques.
8. Provide NPDES information, such as BMP construction fact sheets, on the City’s web page for easy access.
9. Require the submittal of a Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control (EC) plan with all development, building, and grading permit applications that involve soil disturbance on greater than 1 acre. Currently, only projects greater than 1 acre are required under state law to submit an ESC Plan and a SWPPP.

An effective ESC plan ensures that erosion and sediment control measures are considered during the site planning stage of development; and include both structural and nonstructural controls. Nonstructural controls decrease erosion potential, while structural controls are preventative in nature. While stormwater control plans tend to focus more on nonstructural site design controls, ESC plans focus on structural controls. Although proper design and siting help prevent the development of areas prone to erosion; construction activities invariably result in conditions where erosion can occur. At a minimum, the following ESC/SWPPP plan elements are required:

- Topographic and Vicinity Maps showing nearby roadways; natural and finished grades before and after construction; geographic features and drainage patterns; and proposed stormwater facility locations—(receiving water, conduits to receiving waters, and/or drain inlets, etc.)
 - Site development plan showing existing and proposed buildings and paved areas
 - Vegetation Plan (Existing and Proposed)
 - Erosion and Sedimentation Control plan drawings
 - A detailed, site specific, listing of the potential sources of stormwater pollution
 - Description of type and location erosion and sediment control Best Management Practices (BMPs)
 - Detailed drawings and specifications for BMPs
 - Design calculations, including quantity of existing and proposed runoff
 - Construction Schedule
 - Name and telephone number of the person responsible for implementing the ESC/SWPPP.
 - Certification/signature by the landowner or an authorized representative.
10. Produce an implementation schedule necessary to implement the Construction Site Management Element through the five-year term of the Municipal Permit.
11. Monitor program effectiveness using measurable goals to document urban runoff pollution prevention activities conducted on construction sites. By September of each year, submit a summary of activities to the City's Water Resources/Urban Runoff Pollution Prevention Program along with the Annual Activities Report for inclusion into City's Annual Report to CRWQCB.

5.4 Activities

Construction sites are defined as any parcel on which soil is disturbed by construction activity requiring one or more of the following permits: Building, Encroachment, Grading, Subdivision or any other construction related permits. Construction activity may be a result of private development projects, or City of Salinas Capital Improvement projects. A California Regional Water Resources Control Board (CRWRCB) Waste Discharge Identification number (WDID), including proof that a Notice of Intent (NOI) (application for coverage under the SWRCB's General Construction Storm Water Permit) has been submitted to the CRWRCB are already required as part of the application for any Building, Encroachment, Grading, Subdivision or any other construction related permit for any construction site consisting of one or more acres. Furthermore, the City of Salinas also requires that the application include a Stormwater Pollution Prevention Plan (SWPPP) including appropriate BMPs for approval by City staff prior to issuance of any construction related permit.

A. Regulations

The City of Salinas is in the process of updating its Grading Standards and Stormwater Ordinance. Documentation of those activities required of construction related permits will be an integral part of new Permit Processing Software currently being procured.

B. Identification of Project Sites-Inventory

The City of Salinas already uses its Building and Construction/Encroachment Permit process to inventory, schedule inspections and track all construction activity. Since the City of Salinas employs uniform building and construction inspection and monitoring programs where all sites are inspected thoroughly, there has not been a need to prioritize projects. For the most part, this process has been successful and currently meets the requirements of the City of Salinas' NPDES Permit. During this permit cycle, the City of Salinas expects to install new Permit Processing Software that will have the capability to track construction activity from initial planning to final construction, and the ability to archive that information for future use.

C. Prioritization of Project Sites

Construction projects can range from a simple addition to a home, to a major residential subdivision, industrial complex, or shopping center. The following factors, along with other procedures, will be considered when establishing project priorities:

- ✓ Site Location and Proximity to Environmentally Sensitive Sites: Including receiving waters, such as creeks, Carr Lake, Markley Swamp, the Salinas River, and Reclamation Ditch 1665; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board ("Basin Plan"); areas designated as preserves or equivalent in the Cities General Plan or by California State Fish and Game; and any other equivalent sensitive area that has been formally designated.
- ✓ Project Type and Size: The total disturbed area will be considered and a generalized listing of project types will be developed;
- ✓ Soil Erosion Potential: Each site will be evaluated for its potential for erosion;
- ✓ Onsite Slope: The City of Salinas lies within the Salinas River Valley, and therefore is relatively flat. Onsite slope conditions will be evaluated for its potential to contribute pollutants and factored into the selection of BMPs;
- ✓ Means, Methods and Season of Construction: methods, as well as the season of construction (wet versus dry) will also influence the selection of BMPs. Site management practice of wetting sites for dust control often results in dry season construction being treated similar to wet season for BMP installations. The varying methods of site clearing and grubbing, and the amount of exposed soil at any given time/project phase shall be considered in determining priority.
- ✓ Non-storm Water Discharges: The potential for non-storm water discharges such as: soil amendments, fertilizers, building waste materials, concrete waste, construction materials and compounds, types of machinery and equipment on-site, as well as spoils and debris from excavation and dewatering will be considered in determining site priority;

-
- ✓ Practices and Past History of Construction Owners: Past performance regarding urban water runoff will be given consideration.

These factors summarize the varied circumstances that govern a project's potential effects upon the environment, and will be considered when setting priorities. In general, larger and/or more complex projects, and projects with greater potential for adverse impacts will simply command more resources and higher priority.

City of Salinas staff has been able to provide a uniform level of inspection services to all projects. Even with uniformly high inspection rates, there are merits to establishing priorities. Within a project, the different stages of construction pose varying levels of risk to water resources. Therefore, projects that may begin as high priority may become a medium or low priority as it is constructed (or visa versa). Specific aspects of development, such as grading and land clearing pose greater risk than most other aspects. City of Salinas staff will manage construction permit services, including construction site management inspection, to meet City policies (General Plan), as well as State of California and Federal mandates.

Priorities shall serve as a tool and minimum threshold, but not a replacement for City policy. In accordance with the Municipal Permit, the City of Salinas has developed the following priority criteria:

1. High Priority Construction Sites:
 - a. Site of 5 acres or greater.
 - b. Projects, active or inactive, adjacent to a water body.
 - c. Any Site tributary to a 303(d) impaired water body or environmentally sensitive area.
2. Medium Priority Sites:
 - a. Sites of 1 acre, or grater;
 - b. Sites where grading permits are required, but SWPPP are not; and
 - c. Sites (private and public) where minimal grading is proposed, such as single-family homes, driveway additions, or retaining walls.
3. Low Priority Sites:
 - a. Sites (private and public) where no grading is proposed, such as tenant improvements.

Where all construction activity, including the storage and handling of construction-related materials, spills and waste, will be completely enclosed (with no conduit to storm drains or surface water exists), the City of Salinas will not inspect for urban runoff pollution. Examples are: interior remodeling, mechanical work, tenant improvements, temporary mobile home (or trailers), and emergency construction activities necessary to protect the public's health and safety. Whether or not the City of Salinas requires or provides inspection services; property owners and/or contractors are still required to practice good housekeeping measures to protect water resources.

D. Inspection Schedules

Initial inspections are typically conducted within a few working days of the pre-construction meeting, i.e., the first inspection conducted for the project. Subsequent inspections are conducted with each subsequent construction inspection requested (at minimum as shown in Table 5.2). Depending upon circumstances, subsequent

inspections may be conducted as frequently as daily, or as infrequently as monthly (not related to storm water). During these inspections, general impressions of site management and operations are made and documented. Dependent upon the inspection results, a follow-up inspection specifically for urban water runoff may be scheduled. Anticipation or onset of heavy storms can trigger the need for additional inspections.

E. Inspection/ Monitoring Criteria and Procedures

Construction site inspections for urban water runoff will include the following. City staff will identify and meet with the qualified contact person responsible for the project. Contact person must demonstrate, document, or otherwise provide proof of knowledge and training on Urban Water Runoff BMPs:

1. Erosion and sediment control plans included within approved construction drawings shall be used, even when a SWPPP is not required;
2. SWPPP, and construction drawing, BMPs must be installed and operating as specified and approved (or revised, with approval of City of Salinas staff);
3. SWPPP's and plans must always reflect current site conditions;
4. Impacted Storm drains (down or upstream) shall be protected at all times;
5. Natural drainage courses shall be protected;
6. BMPs shall be in place and function properly, consistent with approved erosion and sediment control plans, SWPPP's or revisions;
7. Non-storm water BMPs shall be employed (such as concrete washout, irrigation runoff, oil containment, and others);
8. Sediment traps, basins, and other BMPs shall function properly;
9. Perimeter protection shall be provided to ensure that sediment and debris from construction activities does not migrate to public streets and storm drain facilities. The City Engineer may require daily, or more frequent, cleaning;
10. Stormwater discharge points shall be free of significant sediment deposits;
11. Erodible slopes shall be protected by approved soil stabilization methods;
12. Material and equipment handling, storage, and maintenance areas shall be clean and free of spills, leaks or other harmful materials;
13. Temporary stockpiles of construction materials shall be located in approved areas, and protected from erosion;
14. On-site traffic routes, parking and equipment storage and supplies shall be restricted to areas designed on approved plans/SWPPP's;
15. Landscaped (included seeded) and irrigation areas shall be maintained to protect them, and to ensure no runoff off-site.

F. Inspections

Consistent with NPDES Permit requirements, the City of Salinas has updated its grading Standards. Adoption of the updated grading Standards is anticipated during the second year of this permit. These Standards along with the Stormwater Ordinance prescribes means to protect receiving waters. Key language in the draft Grading Standards includes:

- ✓ Prohibiting accelerated erosion;

- ✓ Prohibiting grading that may obstruct, impeded or interfere with natural stormwater flows;
- ✓ Holds property owners, or their agents, responsible for protecting areas on or near their property;
- ✓ Requires installation and maintenance of BMPs to protect adjacent waterways and properties;
- ✓ Requires all construction projects to implement a set of BMPs.

Table 5.2 Construction Inspection Frequencies

Priority Description	Wet Season (October 1 - April 30)	Dry Season (May 1 - Sept. 30)	Inspection Frequency
Active/High Priority Sites	✓		Once per Week
		✓	Every other month
All Other Active Construction Sites Requiring Minimum BMPs	✓		Once a month
		✓	Once every other month

5.5 Performance Standards

Adequacy of construction site management practices shall be evaluated based upon the following performance standards:

- ✓ No measurable increase of pollution (in runoff) from the site, including sediment.
- ✓ No erosion to slopes.
- ✓ Water running off the site, must not have greater velocity than it did prior to construction activity.
- ✓ Lack of adequate BMPs, or poorly installed measures, shall be corrected.

Sites where construction has ceased for a period of 7 consecutive calendar days or more shall be considered inactive. Inactive, as well as active sites, must be fully protected from erosion and sediment discharges throughout the year. Responsibility for this protection shall rest with the property owner, and/or his/her contractor. As discussed in previous sections, appropriateness of BMPs will vary depending upon several factors, including wet and dry season.

Minimum Construction BMPs

All construction projects shall implement the following BMPs unless the BMP is not practicable. If a BMP is deemed not practicable, a detailed justification shall be included with the approved SWPPP:

1. Stabilized construction entrance.
2. Scheduling of grading activities to minimize bare graded areas during the rainy season.
3. Downslope sediment controls, e.g. sediment log.
4. Concrete truck washouts.

5. Storm drain inlet protection.
6. Protection of slopes and channels.
7. Good housekeeping practices (e.g. trash management, proper material storage, etc.)

5.6 Relationship Between Performance Standards, Site Management Requirements and Best Management Practices

It is the responsibility of the property owner and/or contractor to select, install and properly maintain appropriate BMPs. BMPs must be installed in accordance with an industry standard, or in accordance with the California General Permit for Construction Activities.

If a selected BMP is implemented but allows sediment or other pollutants to be discharged from the site; applicable City regulations will have been violated. Mere implementation of site management and Best Management Practices discussed below, and elsewhere, will not excuse a failure to meet the established performance standards. The City expects that owners/contractors will replace these non-compliant features with those that comply with City requirements, post haste.

Consistent with the California General Permit for Construction Activities, the City will require that both erosion and sediment control BMPs be installed and maintained for all grading and building projects.

Minimum Best Management Practices

Best Management Practices (BMPs) are contained in multiple sections of this element. This section includes the broad BMPs required in the NPDES Permit. Location of BMPs within this element does not imply greater or lesser significance. All BMPs listed in the preceding sections are required. For those BMPs determined to be not practicable, applicants shall be required to include in the SWPPP a detailed justification for the reasons why and identify which BMPs they have proposed as a substitute.

- ✓ Stabilize construction exit.
- ✓ Comply with the City of Salinas' grading standards and stormwater ordinance.
- ✓ Minimize grading during the wet season; if grading does occur during the wet season, implement additional BMPs for any rain event that may occur.
- ✓ Emphasize erosion prevention as the most important measure for keeping sediment on-site.
- ✓ Utilize sediment controls as a supplement to retaining sediment on-site.
- ✓ Minimize exposure times of disturbed bare soil areas.
- ✓ Permanently stabilize, and reseed disturbed soil areas, once grading is complete.
- ✓ Provide downslope sediment controls (e.g. sediment logs)
- ✓ Concrete washouts.
- ✓ Storm drain inlet protection.
- ✓ Protection of slopes and channels
- ✓ Good housekeeping practices (e.g. trash management, materials storage, etc.)
- ✓ Controlled erosion of slopes and channels by implementing an effective combination of erosion control (source control) and other BMPs as described in

the *Erosion and Sediment Control Field Manual*³, *Construction Stormwater BMP Handbook*, or an equivalent manual.

Additional generalized BMP categories are provided in the section that follows. These are included for reference. Additional reference information regarding Construction BMPs is available from these sources, and included here for reference: 1) *Caltrans Storm Water Quality Handbook*⁴, 2) the *Construction BMP Handbook*⁵, and 3) the *Construction Sites Storm Water Runoff Control* from U.S. EPA.⁶

Erosion Controls

Intended to stabilize slopes using vegetation, and/or physical stabilization techniques.

- ✓ Practice Site Management—clearing only those areas essential for conducting activities.
- ✓ Locate potential sources of pollutants away from water bodies and critical areas.
- ✓ Route construction traffic to avoid existing or newly planted vegetation.
- ✓ Protect natural vegetation with fencing, tree armoring, or other appropriate measures.
- ✓ Protect environmentally sensitive areas.
- ✓ Provide linings for urban runoff conveyance channels.
- ✓ Use check dams.
- ✓ Use sodding.

Sediment Controls

Intended to provide perimeter protection or exposed areas from sediment ingress/discharge in sheet flows.

- ✓ Use polymers to stabilize soils.
- ✓ Install sediment basins.
- ✓ Use modified risers and skimmers.
- ✓ Establish inlet protection.
- ✓ Use vegetative buffers.

Materials Management

Prevents waste, debris and materials stored or used on site from becoming transported downstream due to wind, rain, or runoff from the site.

- ✓ Develop and implement a material management program.
- ✓ Develop and implement a spill control plan.
- ✓ Stockpile topsoil and reapply as a soil amendment to reestablish vegetation.

5.7 Enforcement and Construction Regulations

The City of Salinas enforces its standards, ordinances and permits at all construction and grading projects as necessary to maintain compliance with the City's NPDES Permit.

³ California Regional Water Quality Control Board-San Francisco Bay Region, *Erosion and Sediment Control Field Manual*, August 2002

⁴ California Department of Transportation, *Storm Water Quality Handbook*,

⁵ California Stormwater Quality Association, *Construction Stormwater BMP Handbook*; Available online at: www.cabmphandbooks.org/construction.asp#SWPPP.

⁶ Available online at: <http://www.cfpub.epa.gov/npdes/stormwater/measurablegoals/param4.cfm>

Inspections of such projects include review of erosion control measures and Best Management Practices. Inspection results and findings are recorded and maintained by the City. Follow up inspections are performed, as necessary.

Violations of the City's ordinances, permits and NPDES Permit are enforced using a progressively escalating procedure and include both monetary and non-monetary administrative, civil, and criminal remedies. If conditions pose a risk to the public or threaten resources, the City can take action to abate the risk. When the City is unsuccessful in obtaining compliance and has exhausted its administrative and legal remedies, it will provide notification to the CRWQCB. If it is determined that a site poses an immediate or significant threat to water quality, the City shall provide notification to the RWQCB within 5 days of such determination. For construction sites requiring coverage under the General Construction Permit, the City shall refer non-filers to the Regional Board within ten (10) business days of discovery. At a minimum, the City shall provide the following information: project location, develop, estimated project size, and records of communication with the developer regarding filing requirements. Such notification shall be followed by written notification with ten (10) days of the incident.

5.8 Training / Education

One of the most important factors determining whether erosion and sediment controls are properly selected installed and maintained is the knowledge and experience of the designer, contractor and City of Salinas staff member.

City of Salinas staff members in key positions are trained at two levels. First, staff members are provided a general orientation to the City's NPDES Permit requirements and construction related issues and procedures. Trainers discuss and demonstrate BMPs and their relative suitability under various conditions. Field training, using active construction sites, augments this general orientation. General training will be provided every 2 years. Staff will be provided with secondary training annually.

Secondary training will be provided to plan review and inspection staff. This more focused training will keep them current on professional practices and regulatory requirements. General Construction Permit requirements (including elements of an effective SWPPP, proven BMPs and their proper installation and maintenance, changing regulatory conditions, and inspection and enforcement procedures) will be reviewed. This training will take place as part of meetings on topical subjects, and through attendance at workshops and conferences. Staff meetings on a variety of topics will serve as debriefing and prospective sessions (regarding construction/grading, NPDES permit processing and project status reviews).

Once trained, key staff will serve as trainers for others. Lessons learned at workshops and outside training will be shared during staff meetings. City staff will produce and make available informational brochures on construction requirements, erosion and sediment control plans, and BMPs.

For both projects greater than 1 acre and those less than 1 acre in size, there will be plan review for erosion and sediment control. Feedback, especially for plan designers and contractors of smaller projects, will be helpful in the training those responsible for implementation of the projects

5.9 Program Effectiveness

Measurement of program effectiveness will be conducted with the use of the measurable goals listed in Table 5.3 for each BMP.

**Table 5.3 Summary of Best Management Practices
Construction Site Management**

Develop and implement a construction program to reduce to the MEP the discharge of pollutants from both private and public construction sites that fall within the City's jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
II a. Minimum requirements SWPPP requirement for a construction sites one acre or greater	For construction sites one acre or greater, require SWPPP submittal for both state and city review to ensure management of site erosion and sediment runoff	Continue current policy for SWPPP submittal. SWPPP review shall insure minimum requirements of the NPDES program/permit.	1 2 3 4 5	100% of all construction projects one acre or greater shall have SWPPP submittal and review by both RWQCB and the City of Salinas	5.4 C
II b. Inventory of active construction projects Effective system for tracking grading permits and construction permits	Upgrade paper-based system filing system for tracking grading and construction permits to a computer-based network system for logging and tracking permits.	Setup and Installation of Trakit software by CRW for handling and tracking all grading and construction permits.	3	Computerized conversion on-line by March 1, 2007	5.4 B
	Utilization of a computer-based network system for logging and tracking permits	On going utilization of network based Trakit software for tracking grading and construction permits	3 4 5	Utilization of Trakit program to log and monitor 100% grading and construction permits	5.4 B
II c. Minimum construction BMPs for all construction projects	Produce and distribute a brochure showing minimum construction BMPs	Production of a bilingual brochure to distribute at the permit center and as needed during inspection	2 3 4 5	100% availability of brochure for public display and handout at the City's Permit Center counter	5.5
II d. Verification of permits and	For grading and construction permits	Continue policy for RWQCB	1	100% of all	

**Table 5.3 Summary of Best Management Practices
Construction Site Management**

Develop and implement a construction program to reduce to the MEP the discharge of pollutants from both private and public construction sites that fall within the City's jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
plans	one acre or more, insure City SWPPP submittal and review and state Notice of Intent (NOI) coverage.	confirmation of NOI coverage, if applicable. City review of SWPPP shall insure minimum requirements of the NPDES program/permit.	2 3 4 5	construction projects one acre or greater to have documented evidence of NOI coverage, and City review of SWPPP.	5.4C
II e. Inspections Construction inspection frequency	Inspect active construction sites and high priority sites frequently during the wet season to prevent water quality degradation.	Continue to implement the inspection policy to exceed the minimum NPDES permit construction inspection frequencies: 1) During the wet season of one per week for all high priority sites/active projects: and once per month for all other sites 2) During the dry season of once every other month for all construction projects.	1 2 3 4 5	To exceed 100% of the minimum construction inspection frequencies.	5.4 D 5.5
II f. Enforcement of construction site management program	Operating inspection/enforcement policy to best insure compliance with ordinances and permit requirements.	Continue implementation of enforcement of construction site requirements by initial notice and follow-up stop work notice for failure to comply.	1 2 3 4 5	100% implementation of enforcement policy	5.7
II g. Process to refer noncompliance and non-filer to the Regional Board	Prevention of significant degradation of water quality by noncompliant and/or non-filing SWPPP contractor/operators.	Report noncompliance or non-filing contractors whose activities pose significant threat to water	1 2 3	Reporting 100% of noncompliance and non-filers	5.7

**Table 5.3 Summary of Best Management Practices
Construction Site Management**

Develop and implement a construction program to reduce to the MEP the discharge of pollutants from both private and public construction sites that fall within the City's jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		quality by communication of such activity to the RWQCB via e-mail within 5 business days of determination.	4 5	posing a significant threat to water quality to the RWQCB	
II h. Training II h. Training	Annual training of employees in targeted positions to insure proper implementation of the NPDES program with permit and inspection employees	Conduct initial training session to inform staff of NPDES, SWPPP, and general permit requirements. Follow-up at a minimum annually with web-based seminars from ASCE, APWA and other organizations with specifics regarding erosion and sediment control, inspection procedures, and low impact development design.	1 2 3 4 5	100% of all employees engaged in targeted positions	5.8
	Training for utilization of a computer-based network system for logging and tracking permits and inspection reports	Training of personnel engaged in permitting of grading permits, construction permits, and inspection to use the Trakit software by the planned switch-over date 2/16/07. Subsequently, all new employees trained in the first month of employment.	3 4 5	100% of all employees engaged in permitting and inspection to be trained in using the Trakit software	5.8

Table 5.3 Summary of Best Management Practices Construction Site Management Develop and implement a construction program to reduce to the MEP the discharge of pollutants from both private and public construction sites that fall within the City's jurisdiction.					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII g. Small Construction Outreach	Outreach to residential and commercial builders smaller than one acre	Plan review of erosion and stormwater issues for all relevant projects smaller than one acre by permit staff. Review with all new designers of projects smaller than 1 acre in size stormwater quality and LID concepts.	1 2 3 4 5	100% plan review of relevant projects smaller than 1 acre in size for erosion and stormwater issues.	5.8

Public Education and Outreach

Element

6

"I have come to believe that a great teacher is a great artist and that there are as few as there are any other great artist. Teaching might even be the greatest of the arts since the medium is the human mind and spirit."

— John Steinbeck

6.1 Introduction

An informed public is essential if Salinas is to succeed with its efforts to protect water resources. Before people will change, they need to be aware of the issues. As successful corporate leaders across America have found without employee involvement there is no commitment. People need to be engaged.

If the City is to meet its Municipal Permit requirements, the public must participate. However, they need to understand why they should. The challenge, therefore, is to successfully convey what is needed, and why. The City's approach to carry its message is through forming public-private partnerships.

Education is an integral component of each element of this Plan. Each element commits to educating City staff and officials through focused training. Further, elements in this Plan foster continuous education as part of municipal management practices. Education also extends to the public. The City's NPDES Municipal Permit requires broad as well as specific educational outreach. Regional Water Quality Control Board requirements regarding education and outreach are summarized in Table 6.1.

Pollutants of concern addressed by this element include trash and debris, sediment, metals, nutrients, pesticides, fertilizers, vehicle waste products, organic carbon, oil and grease, coliform, and various non-rainwater discharges. For this permit term, the City will focus on reducing the amount of trash (including plastics), sediments, pesticides and fertilizers entering receiving waters.

Table 6.1 Municipal Permit Requirements—Public Education

Section	Requirement Summary	Municipal Permit Section
Entire	Implement a Public Outreach Program	4.VII
Entire	Implement Public Participation Program	4.VII
6.3 A	Storm water management planning to include: Advertising, Media Relations, PSAs “How to literature” distributed to targeted groups below:	4.VII
6.3	Municipal personnel	4.Vii.a.i.
	Construction Site Contractors	4.Vii.a.ii
	Industrial and Commercial owners/operators	4.VII.a.iii and 4.Vii.a.v
6.3 C & D	Residential—school children	4.V.II.a.v
6.3 D	Non-English speakers	4.V.II.a.vi
6.3 B	Quasi-governmental (educational institutions, water districts, sanitation etc.)	4.V.ii.a.vii
6.3 C	Residential - Auto repair - Auto washing - Home / garden - Household Haz. Mat. - Pet Waste - Green Waste - Other	4.V.II.b.i 4.V.II.b.ii 4.V.II.b.ii 4.V.II.b.iii 4.V.II.b.iv 4.V.II.b.v 4.V.II.b.vi
6.3 E	Stencil storm drain inlets/ Signage @ selected high use public access points	4.V.II.c
6.3	Media Impressions--525K minimum	4.V.II.d
6.3 D	Classroom education: 75% of 3-6 grades	4.V.II.e
6.3 C	Business Outreach:	4.V.II.f
6.3 C	Small Construction Outreach	4.V.II.g
6.3 F	Public Awareness Surveys	4.v.II.h
6.3 B	Annual Meetings	4.v.II.i

6.2 Goal

Salinas' goal in the Public Education and Outreach Element is to promote behavioral changes through increased knowledge that lead to greater responsibility and protection of its water resources. Salinas intends to achieve this goal through three principal objectives or strategies. First, move towards an integrated and collaborative municipal approach. Plan implementation requires City staff in various disciplines to work together to address overlapping issues. Second, educate the public about local hydrology including natural water systems, the City's storm drain system and how they affect their quality of life. Third, seek active partnerships and collaborators in protecting watershed health.

6.3 Public Outreach and Education Activities

“First they ignore you; then they laugh at you; then they fight you; then you succeed”

— Adapted from Mahatma Gandhi.

Salinas' public outreach education program focuses on identifying critical audiences and reinforcing its message with them. To establish a common base of knowledge in the first years of the permit term, the education program will necessarily be broad. In subsequent years, messages will be more focused.

Salinas will implement a four-pronged multi-media outreach campaign. Targeted audiences will include the general public, public agencies/quasi-governmental organizations, select community sectors, and primary schools. Themes will be shared across target audiences, and activities will overlap to achieve the desired repetition. To leverage the message and limited municipal resources, the City will partner extensively.

A. General Public

The City's annual outreach goal is a minimum of 525,000 impressions. To obtain this goal, Salinas will conduct a multi-media program that will consider public access television stations, radio, newsprint articles and advertisements, informational brochures, a speakers' bureau, and information booths at events—including the Monterey County Fair, and the annual Environmental Health Coalition Conference. Other outreach efforts may include PSAs at movie theaters, messages on Monterey-Salinas Transit buses and/or informational displays at environmental resource locations. As they become available, Salinas will broadcast Internet stormwater webcasts as a public service at a downtown facility. Media will be selected based upon market strength, cost-effectiveness, available resources, and other factors. The media outreach campaign will begin in the second year of the permit term. Principal partners in this effort will include the business community, various media companies, County of Monterey Environmental Health Department, Monterey County Water Resources Agency, Monterey Aquarium, Stormwater Education Alliance (consortium of Monterey Peninsula municipal communities and school districts) Monterey Bay National Marine Sanctuary, non-governmental organizations, and other groups.

B. Public Agency/Quasi-Governmental

One key to the program success is a clear message. Clarity of message requires internal coordination. Internal stakeholders (city departments) will continue to participate in the City's Salinas NPDES Committee (Committee). Under the direction of the Maintenance Services Department, the Committee will meet to coordinate municipal efforts. Programs will be integrated between departments. Members of Committee will be responsible for ensuring that their respective departments are meeting Municipal Permit requirements regarding public education. For example, public outreach for illicit discharges will continue to reside with the City's Maintenance Services Development. Annually, the Maintenance Services Department will present a report to the City Council on water resource management program activities. Committee members will further act as liaison to appropriate governmental entities (City Council, Planning Commission,

Architectural Review Committee, Park's Commission, et al) and ensure that officials are knowledgeable of relevant Municipal Permit requirements.

With respect to external stakeholders, Salinas will continue to seek partnerships with its sister agencies and quasi-governmental entities to protect water resources. The City will build upon past municipal practices with the County of Monterey, the Salinas Valley Solid Waste Authority, California State University Monterey Bay, Salinas area school districts, agricultural community and others. Salinas will pursue formation of a more structured watershed group to address protecting water resources.

C. Target Audiences

Targeted audiences will be provided specific literature, programs and information all tailored to their specific needs. Salinas will conduct programs for the following audiences: development community (architects, designers, building contractors, et al), business community (commercial and industrial), residential community, and non-English speaking community.

Development Community

The City's Municipal Permit, issued in February 2005, contains changes that necessitated training of municipal staff and educating the public. New requirements for site planning and architectural design required that City staff become knowledgeable and share their knowledge with people involved in development. City staff members are becoming familiar with new site planning and development concepts. For example, several staff attended a workshop on Low Impact Development conducted by the RWQCB. City planning and other staff will be trained once the City adopts new development standards. This is anticipated in the later part of the second year, or early in the third year of the permit term. Once this occurs, they will conduct educational outreach for the development community. Discussions have already begun.

The City's Development and Engineering Services Department (DES) has made plans to prepare and distribute informational literature summarizing new regulations. DES has also begun training its management staff on LID and source control techniques. Additional changes to the City's development processes are contemplated in 2006 after the City adopts a new Zoning Code, Grading Ordinance, Stormwater Ordinance and Low Impact Development (LID) Design Standards. Adoption of any one of these laws would produce a need for training and outreach.

Once new grading and stormwater regulations are adopted and LID design standards are established, DES will also conduct an educational outreach program for residential and commercial designers, builders and contractors of small and large projects. This program will include providing information on three major topics: 1) statutes and regulations, including the Grading Ordinance, Stormwater Ordinance, Municipal Permit, this Plan's BMPs, LID Development Standards and Zoning Code Update governing the discharge of sediment and other pollutants from large and small construction sites; 2) guidance documents available for selecting and installing BMPs, such as those listed in a) City Development Design Standards, b) this Plan, c) documents referenced within this Plan—CASQA Handbook, Caltrans, EPA documents, Bay Area Stormwater

Management Association (BASMA) *Start at the Source*; and 3) penalties for noncompliance.

Public outreach for industrial businesses has been in place since 1999. Salinas contracts with the Monterey Regional Water Pollution Control Agency (MRWPCA) to conduct its NPDES industrial operations outreach and inspection program. Industrial operations involved in the current program are primarily agricultural processing plants. All of these industries discharge into the City's Industrial Wastewater Processing Plant. Education programs are tied to the inspection process. To ensure regulations are being met, the City (through its consultant) makes "cold-calls" with industry. Inspectors inform and educate industry employees at the time of inspections and during site visits. To meet Municipal Permit requirements, public outreach for industry (including commercial businesses) will need to be expanded to include all of the industrial sites listed in the City's Commercial and Industrial Element. Educational outreach and inspections of the City's high priority commercial businesses will begin in the fourth year of the Municipal Permit. Until then, the City will develop educational materials and partnership programs with the Salinas Chamber of Commerce, Builders Exchange and other business groups.

Business Community

An educational program for restaurant employees is being prepared as part of the City's commercial and industrial program. A video, poster and other materials are under review. The City of Monterey has developed a bilingual restaurant video that addresses Best Management Practices first presented by the City of Los Angeles in poster format. Housekeeping BMPs, such as appropriate kitchen mat washing techniques are explained. When Salinas begins its commercial inspection program later in the permit term, it will use some of the educational materials currently under review. Education programs for restaurants and retail gasoline stations will part of the first wave of commercial education programs.

Residential Community

One commercial educational program underway in Salinas involves retail nurseries and residential gardeners. *Our Water, Our World* (OWOW) targets two of the most commonly used residential pesticides: chlorpyrifos (Dursban) and diazinon. These two pesticides occur in local runoff and wastewater treatment plant discharges. This program will place bi-lingual information in nurseries informing residents of environmentally safe gardening practices. Salinas is conducting the OWOW program in partnership with the Salinas Valley Solid Waste Authority and the non-profit Ecology Action. Salinas will provide a range of literature on healthy gardening practices, such as "The Healthy Home and Garden" and the OWOW series to nurseries for inclusion in their display racks. Materials for the OWOW series, restaurant information and other educational information will be produced in English and Spanish, as appropriate.

Latin Community

Salinas has a large Latin population. The City is over 62-percent Latin, with a segment that is non-English speaking. Spanish speaking residents fill vital jobs in agriculture, construction, food service and many other industries. They can become an invisible part of the City's fabric if efforts are not made to include them. In addition to the bilingual

displays at the workplace, Salinas will produce general education and public outreach programs in Spanish, as well as in English. Spanish radio and local television access stations will be included in the mix of media programs that the City produces.

D. Classroom Education

Beginning in the second year of the permit term, Salinas will co-coordinate offering environmental education to 75 percent of school children grades 3 through 6. Programs will cover basic ecology and hydrology, such as the water cycle and include water pollution prevention practices. Training will be offered twice during the permit term. Instructors will integrate presentation into science-math core curriculum requirements to be readily acceptable by teachers. The program will be modeled after successful programs conducted in northern and central California, such as “Splash”, and Walt Disney Company’s Environmentality™. Hands-on learning will be emphasized. Students’ activities will serve as an outreach effort to involve entire Salinas families with community participation and hands-on learning. Well known children’s stories and beloved characters will introduce children to basic and more advanced lessons in the environment to basic environmental concepts. Salinas will partner with the Salinas Elementary Unified School District, area high schools, and other elementary school district’s to conduct the program. High school students will be enlisted to assist primary grade students in learning about local water resources. High school and elementary students will be involved in a hands-on way with fresh water ecology and hydrology. Programs in the field will introduce students to the “Wild Things in Your Backyard.”

E. Stenciling and Signage

Salinas will stencil its storm drain inlets in its civic center, near schools and other areas where high pedestrian traffic is present. Stencils will carry the message that storm drains flow to local creeks and the Monterey Bay. The City will partner with non-governmental organizations, high school and primary grade students, volunteers, and city staff in this program. Guided by a project manager, high school students will stencil downtown areas, as serve as mentors for primary graded students to stencil storm inlets at school locations. This will be a continuing program with the schools, as painted signs last about 2-years before needed to be re-painted. Stenciling is one of a series of hands-on efforts to introduce children to their environment. Sign painting will be conducted as part of other field programs, such as field water quality sampling. These programs are part of the larger perspective of getting children out in their environment and introducing them to Environmentality.™

F. Public Survey

Twice during the permit term, Salinas will conduct a public awareness survey. Surveys will reveal the public’s knowledge of local hydrology and measures to protect water quality. They will also be used to shape future programs. Surveys will also be used to increase public awareness. Surveys will be conducted in English and Spanish. Once returned and tabulated, surveys will also be used to evaluate program effectiveness. In the second year of the permit term, Salinas will conduct a survey as part of its information booth at the Monterey County Fair.

6.4 Program Effectiveness

Program effectiveness is assessed through a comparison of measurable goals to benchmarks. Table 6.2 Summary of Best Management Practices list measurable goals for each BMP within this element. The most comprehensive measure of program effectiveness is the City's Public Awareness Surveys that will be conducted twice during the permit term. Measurements could be made prior to implementing specific educational efforts and again after they are completed. In addition, many of the programs, such as the school children education program contain effectiveness measurements as part of the program. Other programs will be evaluated against the Municipal Permit requirements, or by quantitative and indirect means. For example, Salinas will measure public education programs for specific target sectors by determining the number of educational sessions provided, percent of the audience reached, and the success in conveying the information.

6.5 Educational Materials

Salinas has used some of the bilingual educational pieces adapted from the Model Urban Runoff Plan (MURP). These materials serve as the starting point. To effectively meet community needs, Salinas will continuously refine the materials it uses. Bi-lingual materials used address the following subject areas:

- Where water comes from and where it goes: the distinction between urban water runoff via storm sewers and wastewater via sanitary sewer systems (Element 6);
- The Land-Sea connection: storm drain connection to creeks, rivers and the Monterey National Marine Sanctuary (Element 6);
- Erosion control: consistent with San Francisco RWQCB Erosion and Sediment Control Manual (see Element 5).
- BMPs for high risk commercial and all industrial land uses (Element 7);
- Litter abatement, including specific materials regarding: plastics, cigarette butts (Element 6);
- Pet and animal waste disposal (Element 6);
- Proper solid waste disposal, e.g. garbage, tires, appliances, etc. (Element 6);
- Recycling of used motor oil, antifreeze, paper, glass, aluminum (Element 6);
- Green business program (Element 7);
- Restaurant BMPs (Element 7)
- Vehicle repair, maintenance, and gas station BMPs (Element 7);
- Car washing BMPs (Elements 6 and 7);
- Gardening practices: professional and laymen: composting, irrigation scheduling, planting design, water conservation and use of reclaimed water, etc. (Elements 6 and 4);
- Construction activity BMPs (Element 5);
- Architectural, site and landscape architectural design, Low Impact Development; and other city planning/ urban design considerations (Element 4);
- Spill notification contact number (Element 8);
- Community participation (Elements 3-9);
- Salinas rules and regulations regarding water quality (Elements 8 and 10).

Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII. The Permittee shall incorporate a mechanism for public participation in the implementation of the SWMP.	6.1 Encourage general public and targeted stakeholder groups' involvement in identifying and solving urban watershed pollution issues. Solicit public participation and comments in development and implementation of the City's Urban Watershed Management Program. Integrate community desires with City practices.	Annually conduct two public involvement sessions to inform the public and solicit public comment about the City's Urban Watershed Management Program. One presentation will be held as part of an August/September City Council meeting prior to submittal of the City's Annual Report/Work Program to the Regional Board in October. The second presentation will be held in Spring (March/April) prior to fiscal year budget meetings and summer programs. This second presentation will focus on targeted community segments listed in the City's NDPES Permit. <u>Implementers:</u> City departments and community stakeholders	1,2,3, 4,5	Oral and written comments submitted at / for the hearings will be considered for inclusion in annual report and kept on file. Sessions will be held in September and Spring of each year. 20 attendees per presentation	6.3

Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	6.2 Involve school children and community in active participatory roles to protect water resources, such as creek clean-up and litter removal. Intent: Engage community in direct involvement with restoration of local creeks through revegetation, water quality sampling and clean up of riparian areas.	On-going public involvement with clean-up and restoration of Natividad Creek	2,3,4, 5	Year 2: Involve approximately 500 students in an 8 school planting events Year 3: involve 700 students in a 12 school planting events and involve approx. 500 school children in greenhouse propagation of native plant species from Frank Paul and Los Padres Elementary Schools, Harden Middle and other schools.	6.3

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Propagate and plant 1,500 native trees, shrubs and grass species; Year 3: 5,500 plants. Year 3: Involve Salinas Area children in Internship work Year 3-5: Involve general public in monthly restoration planting and creek clean up events.	
VII. Implement a Public Outreach Program	6.3 Specific BMPs to educate the broad community and those targeted audiences listed in NPDES Permit sections VII a. I-vii are discussed in each of the BMPs below.	Implement comprehensive public education and participation program as contained within Element 6. Note: This is a general BMP in response to the general Permit requirement of implementing an outreach programs (see far left column of this table under Permit Section VII).			Element 6 entire; and Elements 4 and 5 as noted below

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII a.i. Public Outreach Program shall include municipal departments and personnel	6.4 BMPs and measurable goals for municipal department's education and training are contained within each relevant element. For example, training BMPs for municipal maintenance staff are located within Element 3, Municipal Maintenance Table 3.7, while staff training BMPs for land use development, site planning and construction site management are provided within Element 4 and Element 5, Development Standards and Construction Site Management Elements respectively (Tables 4.3 and 5.3).	See Tables 3.7, 4.3 and 5.3.	1,2,3, 4,5	See specific BMPs listed in Tables 3.7, 4.3 and 5.3.	3.5 and Tables 3.7, 4.3 and 5.3
VII. a.ii Public Outreach Program shall include outreach to construction site contractors, developers and landowners	6.5 See Elements 4 Development Standards, and Element 5 Construction Site Management (Tables 4.3 and 5.3 respectively) for outreach BMPs for construction site contractors, developers and landowners.	See Elements 4 and 5 and tables 4.3 and 5.3.	1,2,3, 4,5	See Elements 4 and 5 and tables 4.3 and 5.3 for details regarding this subject.	See Elements 4 and 5 and Tables 4.3 and 5.3
VII. a.iii. Public Outreach Program shall include industrial owners and operators	6.6 Ensure that industry owners and operators are aware of potential water quality impacts from the operations and the BMPs that they can employ to mitigate these potential impacts. See Commercial and Industrial Facilities Element 7 and Table 7.2.	City will conduct site visits at each industrial business within City; provide literature/ information regarding potential pollutants from that specific industry/activity and required BMPs. Show movie identifying desired management practices regarding restaurant BMPs to restaurant staff. In general,	1,2,3, 4,5	Visit all (100%) industrial sites and review water quality issues/BMPs with owner/operator. Record and document results of site	7.4 and 7.5

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		educational materials will be provided during the business site visits. See Table 7.2 for more information.		visits an include in Annual Report. See Element 7.2 for more information.	
VII. a. iv. Public Outreach Program shall include commercial owners and operators	6.7 Inform business operators of issues and actions (BMPs) that they can take to reduce pollutant discharges. See Commercial and Industrial Facilities, Appendix D for additional BMPs.	As part of a collaborative effort with the Southern Monterey Bay Dischargers Group and FOG, conduct a grease reduction/awareness program with restaurants, automobile and other businesses. For FY 06-07, the budget will be \$15,000. For all years, the program will employ theater ads, print media ads--Monterey County Weekly, Monterey County Herald, Californian and El Sol (Spanish language) newspapers, radio ads (KDON, KCDU and KPRC--Spanish language), and the website: "clogbusters.org" to promote program.	1,2,3,4,5	Survey the business community (restaurants and others) to determine owner/operators' awareness of issue and desired management actions. Determine audience reach from media ads and report in Annual Report.	6.3
	6.7a Annually co-produce Environmental Compliance Workshop for commercial, industrial private sector and municipal operators	Annually co-produce Business Environmental Compliance Workshop with Monterey County Environmental Health Division.	1,2,3,4,5	Number of attendees (goal is >100) and attendees	6.3

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	6.7b Make presentations to local chambers of commerce and business groups.	Make presentations to the Salinas Chamber of Commerce other business groups.	1,3,4,5	satisfaction surveys.	
	6.7c Conduct site visits with high-risk commercial businesses	Conduct site visits with high-risk commercial businesses to educate owners and operators regarding business specific BMPs	3,4,5	Number of attendees	
				Beginning in 2007, visit 20% of high-risk commercial businesses each year; document and report results.	
VII. a.v. Public Outreach Program shall include residential community, general public and school children	6.8a Conduct educational outreach campaign geared towards general public and residential community.	Produce in-store displays, "shelf-talkers" and other educational information regarding residential household use of pesticides. The award winning Our Water Our World materials will be provided to local retail stores and nurseries for residential community benefit.	1,2,3,4,5	Number of store visitors and the amount of materials taken.	6.3 C&D
	6.8b Produce media outreach/ educational program	Produce media outreach/ educational program using television, radio, newsprint, movie theater ads/PSA's and other media. See Permit Section	2,3,4,5	Number of impressions will exceed 525,000 per year for entire community.	

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	6.8c Co-produce an outdoor classroom learning experience for students	column VII d. of this table for more detailed information. See Permit section column V.e. for details regarding activities for school children. Co-produce Salinas Valley Ammonia Safety Day/ Lessons learned from Chemical Accidents Co-produce an outdoor classroom learning experience for students by having them conduct water quality samples. Coordinate with private consultant.	2,3,4,5 2,3	Document media reach annually. Number of attendees Number of attendees and success of program as determined by school administrators.	
VII. a.vi. Public Outreach Program shall include communities and businesses with primary languages other than English	6.9 Produce in-store displays, shelf-talkers and other educational information in Spanish regarding residential household use of pesticides. Collaborate with SVSWA and Ecology Action.	Produce in-store displays, shelf-talkers and other educational information in Spanish regarding residential household use of pesticides. The award winning Our Water Our World materials will be provided to local retail stores for residential community use. Include local stakeholder groups in effort.	2,3,4,5	Number of store visitors and the amount of materials taken. Implementers: Collaborate with SVSWA and Ecology Action.	6.3D

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		Conduct media outreach campaign using television and radio –see Permit Section VII d. in this table for details.		See Permit Section VII d. in this table for details.	
VII. a.vii. Public Outreach Program shall include quasi-governmental agencies	6.10 Prepare public agency staff with tools to safely respond to HAZMAT emergencies. Coordinate with local school districts regarding conducting programs aimed at reducing pollutant discharges.	Attend Public Safety WMD Response-Sampling Techniques and Guidelines. Conduct joint programs with Salinas school districts. This program will stencil inlets and employ other interactive educational programs. See also BMP 6.13. Continue joint educational outreach with SVSWA; expand collaborative efforts with BFI, such as providing bill-stuffer educational materials.	3 3,4	Send 50 trainees Number of events and/or number of students involved.	6.3D

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII b. Conduct outreach for the following activities: <ul style="list-style-type: none"> Automobile repair and maintenance Automobile washing 	6.11 and 6.17 Target high-risk businesses identified in City's NPDES Permit for education and compliance.	As part of the City's Commercial and Industrial Facilities effort, conduct site visits and inspections of automobile repair and washing operations. Provide information/materials regarding potential water quality impacts and BMPs along with City requirements.	3,4,5	Document site visits per year and report out to Director of Maintenance Services and in Annual Report. Twenty percent of all high-risk commercial businesses will be inspected annually.	6.3C
VII b. Conduct outreach for home and garden care and product use <ul style="list-style-type: none"> Household hazardous waste Disposal of Pet Waste Disposal of Green Waste Other sources 	6.12 Conduct outreach for home and garden care and product use <ul style="list-style-type: none"> Household hazardous waste Disposal of Pet Waste Disposal of Green Waste Other sources See also BMP 6.8a, 6.8b, and 6.8c for additional discussion on educational BMPs, implementation plans, and measurable goals targeted to residents. 	Produce in-store displays, "shelf-talkers" and other educational information regarding residential household use of pesticides. The award winning Our Water Our World materials will be provided to local retail stores for residential community use. Work with local non-governmental organizations, such as Ecology Action to reduce amount of green waste	2,3,4,5 2,3,4,5	Number of store visitors and the amount of materials taken. Number of attendees.	6.3C

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		by promoting green gardener practices. Co-sponsor six-week Green Gardener Course on sustainable gardening practices. Continue work with SVSWA to reduce pet waste through a joint educational campaign to erase the waste.		Number of impressions and literature distributed.	
VII c. Install signs and stencil storm drain inlets.	6.13 Install signs and stencil storm drain inlets at selected high use public access points to creeks, channels and other relevant water bodies	Contract stenciling of storm drain inlets in high visibility areas. Incorporate stenciling activity with educational efforts with school children. .	2,3,4, 5	Install signs in redevelopment and hi-traffic, business areas.	6.3E
VII d. Conduct multi-media buy campaign to reach cross-section of community	6.14 Encourage general public participation in programs and activities designed to promote understanding and awareness of stormwater pollution, such as individual actions residents can take as well as group activities: clean-up events and restoration activities	Produce TV and radio spots and secure PSA's to reach those target audiences and community segments identified in City's NPDES Permit.	2,3,4, 5	Conduct >300 3-second television advertisements/ PSA's using channels KSBW, KION, Fox and >100 on Spanish language TV: KSMS Conduct approx. 500 60-second radio ads using stations KWAV,	6.3

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				KIDD, KYAA, KIDD and 200 ads on Spanish language radio KPRC, KMBX /KLOK / KSES Combined ads/PSAs will generate 525,000 impressions. Subsequent to years 1 and 2, mix and selection of media will evolve, but will continue to meet 525,000 impressions annually. Changes will be included in Annual Work/Annual Report Program.	
VII e. Classroom education to a minimum of 75% of all 3 rd –6 th school grades.	6.15a Introduce primary grade school children (grades 3-6) to water quality and watershed management concepts and	City will offer a three-tiered school educational program: 1) conduct three half-day teacher	3, 4 and 5	Year 3: propagate and plant 1,500	6.3D

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<p>local issues</p> <p>6.15b Conduct two teacher in-services for teachers.</p> <p>Involve school children and community in active participatory roles to protect water resources, such as creek clean-up and litter removal. Intent: Restore local creeks through revegetation of riparian areas.</p> <p>6.15c Involve school children in active participatory roles to protect water resources.</p>	<p>workshops for school teachers in grades 3-6th within Salinas. Activities will focus on teaching the teacher and will include projects selected from the Project WET, <i>Waves, Wetlands and Watersheds</i>; <i>Watershed Cruzin' activity guides</i> and/or locally developed materials prepared by city's educational consultant ..</p> <p>2) Teachers will be offered an in-classroom presentation for their students using an inter-active teaching approach.</p> <p>3) As a "follow-up" to the classroom, Salinas will also offering field visits to local creeks for direct field experience with watershed principals such as water quality sampling and ecological principles affecting water quality.</p> <p>As part of this lesson plan, students will be tested for consistency with State Content Standards for science and Language Arts. Conduct assemblies using</p>	2,3,4,5	<p>native trees, shrubs and grass species; Year 3: plant 5,500 plants and involve Salinas Area children in Internship work Years 3-5: Involve general public in monthly restoration planting and creek clean up events. Schools, Harden Middle and other schools. Conduct 3 assemblies and reach 650 students minimum in grades 3-6</p>	

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		music, dance and and multi-cultural values to teach students about water and its precious nature and what they can do to protect it. Implementers: City of Salinas Maintenance Services Department staff and City educational consultant.	3		

<div>Table 6.2 Summary of Best Management Practices</div> <div>Public Education and Outreach Element</div> <div>Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP</div>					
Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section

Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section

Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII f. Conduct business outreach to: 1) educate and inform business owners and operators about regulations and BMPs: 2) distributing educational materials, 3) provide suggestions to facilitate compliance, and 4) explain penalties for noncompliance.	6.16 Engage and educate the business community regarding water quality and local, state and Federal regulations.	Conduct site visits with high-risk commercial businesses to educate owners and operators regarding business specific BMPs. Provide suggestions and materials summarizing required BMPs and noncompliance penalties.	3,4,5	20% of high-risk businesses contacted each year. Document and include results in Annual Report.	6.3C
VII g. Conduct outreach to residential and commercial builders with sites ≤ 1 acre. Educate this group of builders re: 1) statutes and regulations, 2) guidance documents for selecting/installing BMPs and 3) penalties for non-compliance	See Elements 4 and 5	See Elements 4 and 5		See Elements 4 and 5, tables 4.3 and 5.3.	6.3C; see Element 5 for more info. re: BMPs
VII h. Conduct public awareness surveys at a minimum of 2X during Permit term. Include results of survey in Annual Report. At minimum, Measure respondents' knowledge of: 1) where stormwater goes, 2) level of treatment provided, 3) types of pollutants and causes, 4) respondents activities that potentially affect water quality, 5) available practices to reduce pollution	6.18 Learn about community by surveying their level of knowledge.	Conduct public awareness surveys at different locations and times during the Permit term. In year 2, conduct a public awareness survey as part of the Monterey County Fair. Conduct second survey as part of a mail-out written survey in conjunction with the local waste hauler BFI. Document and analyze results.	2, 5	Document and report results in Annual Report	6.3F

**Table 6.2 Summary of Best Management Practices
Public Education and Outreach Element**

Implement a Public Outreach Program using any media appropriate to increase the knowledge of target businesses and communities regarding MD4's, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience. The intended outcome of public outreach is a change in the behavior of targeted groups to reduce pollutant discharges in storm water runoff to the MS4 to the MEP

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VII i. Conduct publicly noticed presentation of the information contained within the Annual Report including the proposed Work Program	6.18 Engage the community by producing public sessions on the Annual Report	<p>Annually conduct two advertised public Involvement sessions to inform the public and solicit public comment about the City's Urban Watershed Management Program. One presentation will be held as part of an August/September City Council meeting prior to submittal of the City's Annual Report/Work Program to the Regional Board in October. The second presentation will be held in Spring (March/April) prior to fiscal year budget meetings and summer programs. This second presentation will focus on targeted community segments listed in the City's ND PES Permit.</p> <p><u>Implementers:</u> City departments and community stakeholders</p>	1,2,3,4,5	<p>Oral and written comments submitted at / for the hearings will be considered for inclusion in annual report and kept on file. Sessions will be held in September and Spring of each year.</p> <p>20 attendees per presentation</p>	6.3B

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Commercial and Industrial Facilities

Element

7

"Men do change, and change comes like the wind that ruffles the curtains at dawn, and it comes like the stealthy perfume of wildflowers hidden in the grass."

—John Steinbeck

7.1 Introduction

Commercial and industrial operations are potential sources of watershed pollution in any urban area. As the hub of one of the world's most productive agricultural regions, the City of Salinas is home to major agriculture-related industries that have potential to degrade water quality. The pollution threats from these operations have generally been addressed by the provision of municipal wastewater services and adherence to longstanding permit requirements. An equally large risk to water quality is represented by the collective impacts of the hundreds of smaller commercial and industrial operations dispersed throughout the City. This element identifies the City's high-risk commercial and industrial operations and presents a strategy for reducing their potential to discharge pollutants into the watershed to the maximum extent practicable (MEP), thereby meeting the City's Municipal Permit requirements. Table 7.1 summarizes Municipal Permit requirements and identifies where in this Plan the corresponding text may be found.

The City's strategy for complying with its NPDES permit includes the following subject areas:

1. Pollutant source identification/inventorying of businesses
2. Establishment of Best Management Practices (BMPs)
3. Inspections/Enforcement Program
4. Training
5. Measurement of Program Effectiveness

The remainder of this element is organized around these five subject areas.

Table 7.1 Municipal Permit Requirements -		
Section	Commercial/Industrial Element Summary of Requirements	Permit Section
7.2.B	Identify and inventory all industrial facilities and activities	A4.IV.a
7.2.A	Identify and inventory all commercial facilities and activities	A4.IV.b
7.3	Establish minimum BMPs	A4.IV.c
Appendices D1-D5	Require BMPs for all high-risk commercial	A4.IV.d
7.3.C	Require BMPs for all industrial facilities	A4.IV.d
7.4.A	Inspect Industrial facilities and activities	A4.IV.e
7.4.A	Inspect commercial facilities and activities	A4.IV.f
7.4.B	Facilities with no exposure to storm water runoff	A4.IV.g ₁
7.4.B	Enforcement	A4.IV.g ₂
7.4.B	Process to refer non-filers to Regional Board	A4.IV.h
7.5	Training	A4.IV.i
7.6	Measurement of Program Effectiveness	

7.2 Pollutant Source Identification

The City has identified and inventoried all high-priority commercial facilities and all industrial facilities located within its municipal limits. Inventories are included in a separate City document. High-risk commercial inventory data includes 1) name of business, 2) address, and 3) the nature of the business, or activity that best reflects the principal facility product or service. The industrial inventory will be updated annually. The commercial inventory shall be updated by the third year of the permit term and annually thereafter. The City continuously assesses the storm water pollution characteristics of other types of businesses to ensure that its inventory is complete and appropriate.

A. High-risk Commercial Facilities

Within the category of commercial operations, the City has assigned a high-risk to five types of operations based on their potential to contribute to stormwater pollution. Best Management Practices have been tailored to the characteristics of these five categories. The five categories include:

1. Food Services – (299 facilities) Major water quality concerns associated with food service establishments include high water use, generation of solid waste, and wastewater discharge. Wastewater is disposed through drains leading to a sewer, or directly into storm water drains. Food service pollutants of concern (POCs) can include organic materials and trash (food wastes), bacteria, fats, oils, grease, toxic chemicals in cleaning products, disinfectants and pesticides.
2. Automotive Repair Facilities – (220 facilities) This category includes automotive repair facilities, aviation repair facilities, and all other engine repair facilities. POCs may include heavy metals, hydrocarbons, solvents, chlorinated compounds, acids, alkalis, trash and debris.

3. Retail Gasoline Outlets – (42 RGOs) This category includes commercial facilities that provide vehicle fueling services, including self-service facilities as well as those that provide a convenience store. Potential pollutant sources from this category can include fueling spills, air and water dispensing areas, outdoor cleaning of impervious surfaces, as well as dumpsters. Typical POC include heavy metals, hydrocarbons, toxic chemicals (benzene, toluene, xylene, MTBE), detergents, food wastes and trash.
4. Commercial Car Washes - (16 facilities) Major water quality issues derive from wastewater discharge to the City sewer system. Common POC produced by commercial car washers can include heavy metals, hydrocarbons, suspended solids, nutrients (detergents), and hazardous waste materials.
5. Mobile Cleaners – (48 commercial businesses categorized as carpet cleaners, upholstery, and dry cleaners). Typical pollutants produced by carpet cleaners can include toxic organic compounds and suspended solids.

B. Industrial Facilities

A wide variety in size and type of operations was found among the 166 industrial facilities that operate within the City of Salinas. These facilities have been inventoried in a separate document. Agricultural related industries predominate among the larger facilities. Most of the City's industrial sites are located near the City's southern boundary where the City's Industrial Waste Water Plant treats agricultural process-water discharged from these industries. All other industrial facilities throughout the City have their wastewater (sanitary sewage and any process water) treated by the Monterey Regional Water Pollution Control Agency at the regional wastewater plant in Marina.

Industrial facilities may produce a variety of non-storm water contaminants such as sediments, nutrients, metals, organics, toxicants, floatable materials, oxygen-demanding substances, oil and grease, bacteria, and pesticides.

7.3 Best Management Practices (BMPs)

The City has established two categories of BMPs. The first is a set of seven broad recommended strategies that, if incorporated into the procedures of each commercial and industrial operation in the City of Salinas, would go a long way towards preventing or reducing watershed pollution.

The second type of BMP includes sets of practices tailored to the specific categories of operation and activities. For commercial operations, Source Control BMPs have been established for the primary activities associated with each of the five categories of high-risk commercial facilities identified in Section 7.3.A. These are contained in Appendices D-1 through D-5. For industrial operations, three progressive levels of BMPs from the City's *Industrial Inspection Guidance Manual* are listed in 7.3C. These include Storm Water Discharge Elimination BMPs, Source Control BMPs, and Treatment Control BMPs.

It is the responsibility of the owner/operators of high-risk commercial facilities and industrial facilities to achieve compliance with the NPDES storm water requirements

through the effective implementation of the required BMPs. Each owner/operator is responsible for the effectiveness of BMPs and the facility's discharge to the storm drains.

A. Recommended Strategies

1. Use smaller quantities of toxic materials or substitute less toxic materials.
2. Minimize the volume of cleaning water to decrease wastewater.
3. Provide signage to remind or instruct employees and customers of proper procedures to eliminate waste.
4. Implement a spill response plan.
5. Segregate and recycle wastes.
6. Provide a schedule of preventive maintenance.
7. Train employees in pollution prevention.

B. Required BMPs for Commercial Facilities

In accordance with Section A4.IV.c of the City's Municipal Permit all commercial businesses designated as a high-risk ranking must implement business or activity specific BMPs.

Detailed source control BMPs for each of the five high-risk commercial facility types are presented in Appendices D-1 through D-5. With the exception of those identified as voluntary (*italicized*, and designated with an asterisk -*), each BMP is mandatory.

In cases where commercial facilities are found to not meet MEP during an inspection described in Section 7.5.A after applying BMPs for high-risk businesses, the City will require implementation of structural BMPs to meet MEP. Structural BMPs may include the following:

- Overhead coverage of outdoor work areas or chemical storage
- Retention ponds, basins, or surface impoundments that confine storm water to the site
- Berms and concrete swales or channels that divert run-on and runoff from pollutant sites
- Secondary containment structures
- Treatment controls (e.g. infiltration devices and oil/water separators)

C. Required BMPs for Industrial Facilities

Industrial facilities are required to comply with the BMPs in the order stated in the City's *Industrial Inspection Guidance Manual*, 2000. The manual describes a progression of three types of BMPs: Storm Water Discharge Elimination, Source Controls and Treatment Controls. If Discharge Elimination measures and Source Control BMPs are found unsuccessful in removing POC to MEP, Treatment Control BMPs may be required. Required industrial facilities BMPs include:

1. Storm Water Discharge Elimination BMPs

- a. Eliminate the discharge. Examples include recycling the discharge back into the system (closed loop system) and effective spill prevention and

- cleanup measures. However this BMP may not be possible for certain continuous discharges depending on the facility's operation.
- b. Minimize pollutant generation through effective BMPs (remove the pollutants from the discharge or reduce to insignificant levels)
 - c. Re-route the discharge to the sanitary sewer system (illicit connections such as floor drains, wash waters, and other wastewaters). Wastewaters, such as wash waters and process waters, should be discharged to the sanitary sewer, if allowed by the Monterey Regional Water Pollution Control Agency (MRWPCA). The MRWPCA has specific requirements regarding allowable discharges to the sanitary sewer system, and some discharges may require pretreatment or have discharge limits on certain parameters.
 - d. Implement structural or treatment controls that would treat the storm water before it enters the storm drain system. Temporary BMPs should be put in place to minimize pollutants until the permanent BMPs are in place.
 - e. Obtain an individual NPDES permit from the Central Coast Regional Board for discharge to the storm drain system. This may be an unattractive option given the time and costs that would be required to obtain and implement an individual NPDES permit adopted by the Regional Board. The permit may also include requirements for reporting, treating, monitoring, and achieving discharge limits.

2. Source Control BMPs

A thorough description of the source control BMPs for the following activities can be found in Appendices D-1 through D-5. Source Control BMPs are activity specific to provide the most effective means of controlling the pollutant of concern (POC).

- a. Vehicle & Equipment Fueling
- b. Vehicle & Equipment Washing and Steam Cleaning
- c. Vehicle & Equipment Maintenance and Repair
- d. Outdoor Loading & Unloading of Materials
- e. Outdoor Container Storage of Liquids
- f. Outdoor Process Equipment Operations and Maintenance
- g. Outdoor Storage of Raw Materials, Products, and Byproducts
- h. Waste Handling & Disposal
- i. Contaminated or Erodible Surface Areas
- j. Building and Grounds Maintenance
- k. Building Repair, Remodeling, and Construction
- l. Parking/Storage Area Maintenance

3. Treatment Control BMPs

Treatment control BMPs may be required if the previous two types of BMPs have not been successful in removing the POC to MEP.

- a. Infiltration
- b. Wet Ponds
- c. Constructed wetlands

- d. Biofilters
- e. Extended detention basins
- f. Media filtration (e.g., sand filters)
- g. Oil/water separators and water quality inlets

At a minimum, BMPs shall be implemented at each site by February 2009. The minimum BMPs shall be disseminated to each industrial or commercial facility by February 2008 and every year thereafter.

7.4 Inspections and Enforcement

The City's inspections and enforcement program ensures that the objectives of the City's NPDES compliance strategy are met. Inspectors will point out operational techniques and management practices that site managers may wish to consider along with required practices. Information on these management practices will be provided. Inspection and enforcement ensures fair and equitable treatment of all facility operators.

A. Inspections

The City shall inspect all industrial facilities and activities that discharge into the sanitary sewer service at least once each year. The City will prioritize a commercial facilities inspection list from the inventory of high-risk commercial facilities. Inspection priority will be based on facility type, location, compliance or compliance history, and other factors. The City will inspect a minimum of 20% of these facilities each year, commencing after the fourth year of the permit.

The City is currently exploring possible collaborations with the Monterey County Health Department's Hazardous Materials/Waste Division to inspect high-priority commercial businesses. Inspections for all industrial facilities discharging to the City's Industrial Waste Water Plant are being conducted. An inspection program is being expanded to include new industries as they come on-line.

Inspectors will be trained to readily identify deficiencies, assess potential impacts to receiving waters, and evaluate the appropriateness and effectiveness of deployed BMPs and SWPPPs, if applicable. The inspectors will ensure compliance with all local ordinances, using a checklist, or equivalent, and photographs to document the site and BMP conditions. Records of all inspections will be maintained a minimum of three years.

B. Enforcement

The City of Salinas enforces its ordinances and permits at all construction and grading projects as necessary to maintain compliance with the City's Municipal Permit. Inspections of such projects include review of erosion control measures and BMPs. Inspection results and findings are recorded and maintained by the City. Follow up inspections are performed, as necessary.

Violations of the City's ordinances and Municipal Permit are enforced using a progressively escalating procedure and include both monetary and non-monetary administrative, civil, and criminal remedies. If conditions pose a risk to the public or threaten resources, the City can take action to abate the risk. When the City is

unsuccessful in obtaining compliance and has exhausted its administrative and legal remedies, it will provide notification to the CRWQCB. Such notification shall be provided orally within 5 business days followed by written notification within ten (10) days of the incident. Additionally, the City shall refer non-filers to the Regional Board within ten (10) business days of discovery.

The City may remove facilities from the commercial and industrial inventory if an inspection reveals the facility's industrial or commercial processes meet the requirements for a conditional exclusion for "no exposure" under 40 CFR 122.2.

7.5 Training

The City will provide annual training for employees in targeted positions (whose jobs or activities are engaged in industrial or commercial inspections) regarding the requirements of the City permit. This training shall include storm water BMP installation and maintenance techniques, good housekeeping measures, inspection procedures, enforcement procedures, and information on the requirements in the General Industrial Permit including elements in an effective SWPPP.

7.6 Program Effectiveness

Salinas will measure program effectiveness through each of its BMPs and associated measurable goals. For this element, BMPs and measurable goals are summarized in Table 7.2. Common measures of program performance include the number of activities undertaken, the number or percentage of participation, and feedback from participating commercial and industrial operations. The measures will provide management data for making decisions on future program budgets and staffing needs.

Effectiveness measures can also assess the degree to which program activities reduce pollutants to the MEP or eliminate prohibited non-storm water discharges. Effectiveness will be measured on a limited number of inspections, observations, and/or monitoring. Inspection reports and feedback from inspectors will provide opportunities to evaluate actual improvements. Further compliance with the Municipal Permit will be the major benchmark measure of effectiveness.

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
IV.a Identify and inventory all industrial facilities.	7.1 Identify and inventory all potential sources of industrial water pollution.	<p>Review and update existing Maintenance Services Department's Industrial Wastewater Ponds client list; meet with City Finance Department, Monterey County Environmental Health Division and other groups to confirm business list is accurate. Reconcile list and create master inventory. Update list annually.</p> <p>Request that CC RWQCB provide an electronic list of businesses and all other pertinent information that have either been permitted and/or inspected within two weeks of occurrence.</p>	1,2,3, 4,5	<p>Within 1st year of Permit, create inventory of all industrial facilities and include in SWMP (See Appendix F-2). After the first year, annually review and amend inventory.</p> <p>By October 2007, ask CCRWQCB to acknowledge in writing that it will provide the requested information to the City by their sending a letter stating their willingness to do so.</p> <p>City to begin</p>	7.2.B

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				receiving RWQCB information on business permits and inspection results by December 2007.	
IV.b. Identify and inventory high-risk commercial facilities and activities.	7.2 Identify and inventory all high-risk (as defined by City NPDES Permit) commercial facilities and activities.	Meet with County of Monterey, Salinas Chamber of Commerce and local agencies to obtain information on local businesses. Obtain and review municipal business license list with City staff. Create database in first year of permit. Update list annually using the same methods as was used to create the list. Also pursue method to electronically link database/list with City Business License List to automatically update inventory and reduce effort needed to manually create list.	1,2,3, 4,5	Create inventory/ database of all high-risk commercial facilities and include in SWMP (See Appendices F-3 through F-7). After the first year, amend the list to keep current. Meet with Finance Director to discuss possibilities of electronic linkage between Business	7.2.A

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				License list and inventory of commercial and industrial businesses.	
IV.c. Establish minimum BMPs.	7.3 Designate standard set of minimum BMP to reduce discharges to MEP. Also see BMP 7-4.	Research and analyze various BMPs for suitability. Designate minimum BMPs for commercial and industrial facilities.	2	Within second year of Permit, designate minimum BMPs include in SWMP; review and update annually as technology evolves and as needed; document in Annual Work Program.	7.3 See Appendix D.
IV.d. Require BMPs for all industrial and high-risk commercial facilities.	7.4 Require BMPs for all industrial and high-risk commercial facilities.	Inform industrial and high-risk businesses of new requirements. Noticing procedures will be conducted through a variety of means: direct mail, business meetings, site visits, City web site and other means. City will ensure adherence with Stormwater Management Plan	3,4,5	Notify business community of requirements; document and report results in Annual Report. City will adopt updates to its	7.3 B; 7.C

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
IV.e. Inspect Industrial facilities and activities.	7.5 Inspect industrial facilities for compliance with City's NPDES Permit and SWMP BMPs. See body (page 7-4) of this Element for the required BMPs for industrial operations. Commercial BMPs are contained within Appendix D of this SWMP.	requirements and BMPs through its Stormwater Ordinance and Grading Standards (See Element 10 and Appendices C-2 and C-3) respectively, as well as through its Municipal Code.	1,2,3,4,5	Stormwater Ordinance and revise its present Grading Ordinance by adopting new Grading Standards by July, 2007.	7.4.A

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Annual Report. Maintain records for three years, at minimum.	
IV.f. Inspect commercial facilities and activities.	<p>7.6a Prioritize information; 7.6b Schedule inspections;</p> <p>7.6c Establish a priority list for high risk commercial;</p> <p>7.6d Document findings;</p> <p>7.6e Enforce regulations;</p> <p>7.6f Provide checklist and performance standards to ensure compliance;</p>	<p>Prioritize information contained in facilities inventory to schedule inspections of high-risk commercial facilities. "high risk commercial businesses" are defined by the City's NPDES Permit. City will begin inspections with restaurants and automobile repair facilities.</p> <p>Document findings in database. Perform follow-up inspections as needed.</p> <p>Employ progressive enforcement as needed, consistent with Element 10 of the SWMP.</p> <p>Use checklist and performance standards for inspection program to conduct inspections. Integrate outreach and education into inspection program. Establish a priority</p>	3,4,5	<p>Beginning in 2007, inspect 20% of high-risk commercial facilities; document results and report in Annual Report. Use City performance standards criteria when conducting inspections. After 3rd year of Permit, revise procedures as needed.</p> <p>Complete by the end of the 3rd year of the permit term and</p>	7.4.A

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
	<p>7.6g Inspect 20% of high risk commercial businesses annually;</p> <p>7.6h Employ BMPs consistently.</p> <p>Complete these BMPs to ensure commercial businesses and facilities are not contributing to downstream water degradation.</p>	<p>list for high-risk (HR) commercial businesses; inspect 20% of these facilities each year. Employ BMP consistently.</p> <p>Distribute minimum BMPs to commercial and industrial contacts. City to send inspectors to training session(s) and use BMPs and checklist to ensure consistent application of rules.</p>		<p>provide annually thereafter.</p> <p>Attend Inspection Training for Commercial and Industrial offered in May, 2007, and other training from CASQA, BASMA or others as needed.</p>	
IV.g ₁ , Facilities with no exposure to storm water runoff.	7.7 Ensure that commercial and industrial inventories effectively reflect those businesses that could pose a threat to downstream and in-stream receiving waters. Remove commercial and industrial facilities from inventories that meet Federal requirements for conditional exclusion	Ensure that inspection staff is knowledgeable of Federal regulations and how to apply them. During site inspections, determine whether specific sites meet 40 §CFR 122.26(g) requirements for exclusion and make recommendation to Director of Maintenance Services. Remove sites only where compliance with regulations is met and Director	2,3,4, 5	Document inspection findings, compare with Federal and municipal regulations; include in Commercial and Industrial Facilities Program	7.4.B

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		of Maintenance Service of City and CC RWQCB authorizes. Determination of "No exposure sites" will follow current Water Board "No Exposure Certification requirements" for the types of operation that are required to be enrolled in a Stormwater NPDES permit.		database and in Annual Report	
IV.g ₂ . Enforcement of commercial/industrial management program.	7-8 Ensure consistent and uniform compliance with BMPs.	Follow progressive enforcement procedures contained within Element 10, <i>Program Funding and Legal Authority</i> , and with City Municipal Code. Include close program oversight and regular reporting out of activities. Reporting will be performed by the City Maintenance Services Department under the direction of the department director and City Attorney. Inspectors will provide an annual report of the year's activities to the director by 9/1 or each year. The City will include the results of this report in its Annual Report to the RWQCB. In addition, reports of serious spills or violations will be reported to the	2,3,4, 5	Obtain compliance from non-compliant businesses through escalation enforcement action. Uniformly document and apply enforcement procedures. Provide monthly summaries to management staff. By 9/1 of each year report findings to Director and include in	7.4.B

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		Director's office within 24 hours of discovery of the event.		Annual Report.	
IV.h Process to refer non-filers to Regional Board.	7.9 Provide consistent enforcement of City Codes and compliance with notification requirements.	<p>Document inspections and enforcement actions. When compliance cannot be secured otherwise, refer violators to RWQCB per prescribed rule. Written notice shall include: Facility name and location; Facility contact name and number; records of communication with facility; standard industrial code, when available.</p> <p>Notification of non-compliance with City Codes will be provided to the Regional Water Quality Control Board orally within five (5) business days of occurrence and in writing within ten (10) business days.</p> <p>City will employ its progressive enforcement procedures as summarized in Element 10 and will make a determination that the party is "non-compliant".</p>	1,2,3,4,5	When City enforcement efforts have been exhausted, orally notify RWQCB staff within 5 business days of such determination, and written notice within 10 business days.	7.4.B

**Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities**

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
		Determination of “non-compliance” will be based upon a party’s not meeting the City’s Code of the written requirements imposed upon such party’s failure to remedy the condition. Final determination will be made by the Director of Maintenance Services after first consulting with the City Attorney’s Office.			
IV.i. Training.	7-10 Ensure staff members are trained to a standard of competency and are kept current of evolving technologies and BMPs. See also training under Element 6 (pages 6-1 to 6-7 and in Table 6.2).	Train program staff on Federal and local regulations, watershed management concepts and standard BMPs. Also, train staff on: communication, city citation process, administrative authority, and enforcement procedures. (See Table 6.2 Public Education and Outreach for more information on training implementation).	1,2,3, 4,5	100% of all inspection program staff trained before beginning fieldwork (year 1 for industrial and year 3 for commercial) and all new and non-inspection, management (who may have occasion to inspect) employees annually thereafter. Document and	7.5

Table 7.2 Summary of Best Management Practices
Commercial and Industrial Facilities

Develop and implement a commercial/industrial discharge management program to reduce to the MEP the discharge of pollutants from certain commercial and industrial operations within its jurisdiction.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				report number of staff trained and topics covered in report to Director; include in Annual Report.	

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Illicit Discharge And Illegal Connection



"It always seemed strange to me that the things we admire in men, kindness and generosity openness, honesty, understanding and feeling are the concomitants of failure in our system. And those traits we detest, sharpness, greed, acquisitiveness, meanness, egotism and self-interest are the traits of success. And while men admire the quality of the first, they love the produce of the second."

— John Steinbeck

8.1 Introduction

Illicit discharges and illegal connections represent the public's knowingly, or unknowingly discharging pollutants into the municipal storm sewer system. Principal remedies to address this matter include public education, verification through inspections and enforcement.

8.2 Goal

The City's goal is to prevent discharges with potential pollutants from entering the storm drain system. These discharges can be intentional or unintentional (accidental). The program will have two objectives: 1) prohibit non-storm water discharges and 2) investigate and remediate illicit discharges and improper disposal into the MS4.

The City intends to achieve its goal and meet its Municipal Permit requirements (Table 8.1) through a collaborative effort between several City departments and outside agencies. Partners include, but are not limited to, the Salinas Valley Solid Waste Authority (SVSWA), Household Hazardous Waste Facility, Monterey County Environmental Health Department, Salinas Police Department and the Salinas Fire Department.

Table 8.1 Permit Requirements – Illicit Discharges and Illegal Connections

Section	ID/IC Permit Requirements Summary	Permit Section
8.2	Implement ongoing ID/IC program	VI
8.2	Prohibit non-storm water discharges to the MS4	VI
8.3 A	Develop map	VI a.
8.3 A	Identify and map industrial facilities	VI a.
8.3 B	Continue to operate hotline telephone number	VI b.
8.3 B	Advertise hotline	VI b.
8.3 B	Maintain log of IDs and spill calls	VI b.
8.3 B	Train phone operators (emergency/ non-emergency procedures)	VI b.
8.3 C	Conduct drive-by inspections	VI c.
8.3 C	Maintain records of drive-by inspections	VI c.
8.3 C	Review and determine areas that shall have increased inspections	VI c.
8.3 D	Develop program for dry weather screening	VI d.
8.3 D	Develop procedures for dry weather screening	VI d.
8.3 D	Collect samples for Analysis in accordance with MPR, Attachment 5, Order R3-2004-0135	VI d. i
8.3 D	Conduct dry-weather screening at identified stations four times a year	VI d. ii
8.3 D	Record general information if flow or ponded runoff is observed	VI d. iii
8.3 D	Record all applicable observations if no flowing or ponded runoff	VI d. vi
8.3 D	Develop threshold levels for monitoring results	VI d. v
8.3 E	Respond to, contain, and clean up sewage and other spills	VI e.
8.3 E	Develop mechanism whereby notification of sewage spills from private laterals and failing sewage systems can be reported	VI e.
8.3 F	Implement progressive enforcement policy	VI g.
8.3 F	Use appropriate sanctions to ensure compliance	VI g.
8.3 G	Facilitate disposal of used oil and toxic materials	VI f.
8.3 G	Include additional educational activities	VI f.

8.3 Activities

To ensure the well being of the MS4 system, the City will employ various activities that will aid in the achievement of this goal. The following activities are tools by which the City hopes to have better control over pollutants that enter or could possibly enter the MS4.

A. Mapping

In order to identify priority areas for illicit discharges the City has mapped all inlets and outfalls and has updated its associated inventory. Using this mapping system and staff surveys, the City has identified priority areas for illicit discharge screening: concentrated areas of industrial and commercial facilities. The City has also mapped locations of industrial facilities within the City. By employing the land use maps to show inlet locations, the City is able to designate areas where illicit discharges and toxic spills can be contained.

B. Illicit Discharge Reporting System

The goal of the illicit discharge reporting system is to promote and facilitate the public's awareness and reporting of illicit discharges and disposal incidents. The program consists of a publicized hotline phone number to accept incoming calls from the public concerning possible illicit discharges and disposals. This telephone number is now listed in the phone book and on City public education materials. During the next printing of the local white/yellow page phone directory, the City will highlight the number as the *Spill Reporting Hotline*. The City now coordinates municipal response, follow-up, and documentation of such incidents through its Maintenance Service Department. Telephone operators and field personnel are trained in emergency and non-emergency procedures.

The City's Maintenance Department in conjunction with the Police Department shares handling the public's reporting of possible illicit discharges and illegal connections (ID/ICs). During regular business hours (Monday-Friday between 8:00 a.m. to 5:00 p.m.) calls are placed to the Maintenance Services personnel. After-hour calls are routed to the City's Police Department who then contacts standby trained Maintenance Service personnel.

The public can also give referrals about illicit discharges and illegal connections through other departments and agencies such as the Household Hazardous Waste Facility, Salinas Solid Waste Authority, and the Monterey County Environmental Health. The hotline and/or other numbers that the public can contact to report illicit discharges or illegal connections will be printed on all education, training, and public participation materials as well as printed on the phone book.

C. Illicit Discharge Identification

The City has an on-going program to identify illicit discharges through drive-by inspections. City maintenance personnel and/or industrial inspectors conduct inspections for major outfalls and other priority areas. City staff members drive through residential neighborhoods twice a month and weekly for commercial areas. These drive-by inspections are conducted in conjunction with the City's street sweeping program. In addition to the drive-by inspections, Salinas uses its building inspectors and industrial and commercial inspectors to determine whether increased inspections of specific neighborhoods areas needed. The City maintains records of incidents reported by inspections along with follow-up actions. The City has identified areas where ID/IC's are most likely to occur.

D. Dry Weather Screening

The City conducts a dry-weather screening program consistent with required Municipal Permit procedures (Order R3-2004-0135). Dry-weather screening is conducted four times a year, at minimum. At least one of these dry weather analytical and field screening monitoring events is conducted between May 1st and September 30th of each year. Screening records are kept whether or not discharges were observed at the site. The City identifies potential discharges by:

- Abnormal water flows during the dry season

- Pungent odors
- Discoloration or oily substances in the water, or stains and waste residue in ditches, channels, or drain boxes

All samples collected are analyzed in accordance with Monitoring and Reporting Plan (MPR), Attachment 5; Order R3-2004-0135. Once collected, the City determines whether the (non-stormwater) discharge is a permitted one. Threshold levels for the amounts of pollutants and levels for monitoring results are determined by the City. If discharge does not exceed threshold levels, no further action will be taken. If the discharge is not a permitted discharge, the City will take corrective actions. Written procedures for dry weather analytical and field screening monitoring, including field observations, monitoring and analyses that is conducted during the dry season has been prepared and is contained within the City's Quality Assurance Program Plan (see Element 9).

E. Contain, Control, and Response to Spills

Dry-weather monitoring, drive-by inspections, or public reporting can lead to further investigation or result in immediate action. For example, when a spill occurs, the City's trained personnel respond. The *City of Salinas Spill Response Plan* contains strategies and identifies responsibilities to enable various departments to effectively work together. First responders are normally the City's Fire, and Maintenance Services Departments. Through its Spill Response Plan, staff training, internal communication protocols and its published telephone numbers, the City has developed mechanisms for public reporting, and rapid municipal staff response to spills and failed systems. When an illicit discharge, illegal connection, or emergency spill threatens the sanitary storm sewage system the City works with all appropriate departments, programs and agencies to ensure the protection of water quality.

Part of the City's spill response program includes prevention through public education and promotion of proper materials management.

F. Facilitate Disposal of Used Oil and Toxic Materials

Salinas has had an on-going partnership with the Salinas Valley Solid Waste Authority (SVSWA), and others to promote the proper handling and disposal of toxic materials and recycling of vehicle and other fluids. The City partners with the County of Monterey in its Used Oil and Filter Recycling Program. This program consists of drop-off centers, including residential, agricultural, and marina drop-off sites. The City also fosters proper disposal of toxins and other waste through the SVSWA's Household Hazardous Waste Collection Facility. The City plans to continue its public education program partnerships to inform the public of the proper management methods and disposal of used oil and other hazardous materials. Education includes distribution of brochures.

G. Enforcement

The City's inspections and enforcement program ensures that the objectives of the City's NPDES compliance strategy are met. Inspectors will point out operational techniques and management practices that site managers may wish to consider along with required

practices. Information on these management practices will be provided. Inspection and enforcement ensures fair and equitable treatment of all facility operators.

8.4 Program Effectiveness

Salinas will measure program effectiveness through measurable goals for each BMP. Table 8.2 summarizes BMPs for illicit discharge and illegal connection and provides associated measurable goals for each. In general, effectiveness will be measured by two means: direct and indirect. The direct method is measured by conducting sampling and water quality testing. Indirect measures include tracking the number of reported spills, the number of discharge incidents, the quantity of pollutants that entered the City's sanitary storm sewer system, the number of educational material provided to the public, and compliance with the City's Municipal Permit's requirements.

**Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination**

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VI a. Collection System Inventory and Map--Identify priority areas for illicit discharge screening, including concentrated areas of industrial and commercial facilities.	Protect downstream receiving waters from illicit discharges by identifying priority areas for screening. 8.1a Identify illicit screening priority areas 8.1b. Update inlet/outfall and land use maps as development occurs. 8.1c. Digitize maps as resources permit.	Overlay land use information (industrial uses) with stormdrain field maps showing inlet and outfall locations and environmentally sensitive areas to identify illicit screening priority areas. Update map to include new facilities as they come on line. Digitize maps as resources permits.	3	Complete identification of priority areas by 5/10/ 2007 and submit to RWQCB for review. <i>Implementers:</i> Maintenance Services Department.	8.3 A
VI b. Illicit Discharge Reporting System.	Illicit Discharge Reporting System--Promote the reporting of illicit discharges by having a system for receiving such reports. Continue to operate a telephone hotline number. Designate a telephone hotline number for the public to call in potential illicit discharges. 8.2 a Publish telephone emergency number; 8.2b Train staff in emergency incident procedures; 8.2c Respond to incidents appropriately; 8.2d Print "emergency number".	Publish and operate telephone hotline number to accept calls from the public. Maintain a log of all calls. Train staff in proper emergency incident procedures. Using City protocols, investigate and take appropriate action on each report of illicit discharge that is received. Print hotline number on all education, training, public participation materials Post Salinas <i>Spill Response Plan</i> to City's webpage. Please refer to Salinas webpage: Maintenance Services Urban / Watershed Management / <i>Spill Response Plan</i> .	1,2,3 4,5 3	Continue to offer a public hotline telephone number; publish number on all educational materials. Advertise on a minimum of four educational outreach pieces. Document and include in Annual Report.	8.3 B

Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VI c. Illicit Discharge Identification.	<p>8.3a Conduct drive-by inspections of priority sites; maintain records.</p> <p>8.3b. Review inspection programs to determine whether increased frequency of inspections are needed</p>	<p>City Street Sweeping crews will serve as first-line “drive-by” inspectors and monitor streets for illicit discharges. They will call in sightings to office.</p> <p>Building inspectors and Commercial and Maintenance Services Department staff will make assessments regarding the need for increased frequency or more detailed inspections in specific neighborhoods/sites.</p>	3,4,5	<p>At minimum, conduct quarterly “drive-by inspections”: in industrial and commercial areas, and quarterly in residential areas. Quarterly conduct thorough “stop and investigate” inspections of priority areas.</p> <p>Semi-annually review the inspection program to determine effectiveness and whether some neighborhoods need increased inspection.</p> <p>100% of all reports of illicit discharge investigated and</p>	8.3 C

Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				reported. Outcomes of each case noted in the form of: "closed", "ongoing enforcement", or "still investigating source". Provide summary report of all calls in Annual Report. <i>Implementers:</i> Maintenance Services Department.	
VI d. Dry weather screening.	<p>Detect illicit discharges and illegal connections through geographically widespread monitoring.</p> <p>The BMP for this topic is addressed in Element 9 <i>Monitoring and Water Quality Testing</i> and within the City's QAPP.</p> <p>8.4a Conduct dry-weather screening at identified stations four times a year.</p>	Conduct dry-weather screening at identified stations four times a year. Record general information if flow or no flow of ponded runoff is observed; monitor results. Collect samples for analysis in accordance with QAPP--see Element 9 and City's QAPP.	2,3,4, 5	See the QAPP	8.3 D
VI e. Contain, Control and	Respond to, contain, and clean up	Implement City's spill response	1,2,3	100% of all	8.3 E

Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
Respond to Spills to the MS4.	sewage and other spills. 8.5a Implement City's spill response plan. 8.5b. Manager or supervisor to conduct annual training	plan. Coordinate spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies. Designate Wastewater Division Manager as coordinator to serve as inter-departmental and inter-agency liaison. Manager or supervisor to conduct annual training.	4,5	reports of illicit discharge investigated and reported. Outcomes of each case noted in the form of: "closed", "ongoing enforcement", or "still investigating source". Provide summary report of all calls in Annual Report. <u>Implementers:</u> Maintenance Services Department	

**Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination**

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
VI f. Facilitate Disposal of Used Oil and Toxic Materials.	<p>Properly dispose of used oil and toxic materials.</p> <p>8.6a As Joint Powers Authority majority member, coordinate with SVSWA</p> <p>8.6b Provide brochures</p>	<p>Coordinate with SVSWA to facilitate the proper management and disposal of all used oil, vehicle fluids, toxic materials, and other household hazardous wastes. See footnote on page 8-13 for description of used oil management practices. This effort includes disposal of household hazardous waste, electronic e-waste, green waste and other recyclable products.</p> <p>Provide brochures and produce educational activities through joint public education outreach and participation efforts with SVSWA. (See Element 6, Table 6.2).</p>	1,2,3 4,5	<p>Partner with SVSWA regarding proper disposal of materials generated within the city limits.</p> <p>participating with SVSWA in bi-annual disposals of toxic materials.</p> <p>Document the results of these efforts and report in Annual Report to RWQCB in October.</p> <p>Document results of educational efforts, including the number of activities conducted and the number of people reached.</p>	8.3 F

**Table 8.2 Summary of Best Management Practices
Illicit Discharge Detection & Elimination**

Implement an ongoing program to investigate and remove illicit discharges and improper disposal into the MS4. Prohibit non-storm water discharges to the MS4, and other than those authorized under separate NPDES permit.

Permit Section	Best Management Practice or Activity	Implementation Plan	Year	Measurable Goal	Element Section
				Include in Annual Report.	
VI g. Enforce the City Code to eliminate illicit discharges.	Take enforcement action against parties responsible for illicit discharges. 8.7 Implement City's progressive enforcement policy.	Implement City's progressive enforcement policy. See also Element 10 <i>Program Funding and Legal Authority</i> .	1,2,3,4,5	Document and report enforcement actions and outcomes in Annual Report.	8.3 G

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Footnote for BMP 8.6a in Table 8.2

Procedures for Storage and Disposal of Used Motor Oil and Used Oil Filters

The following procedures are based upon the State of California Department of Toxic Substance Control Fact Sheets and accordingly are consistent with state requirements.

Storage and disposal of used Motor Oil and used oil filters

Salinas has an existing program provided by other agencies and private companies that educate and provide services for used motor oil and used oil filters. Salinas has curbside oil recycling services for residences. Further, all auto part stores provide containers for used motor oil and filter bags. The local waste company, Salinas Valley Solid Waste Authority provides education information in their newsletters yearly regarding the topic. In addition the Monterey Regional Waste Management District provides information by mail and at most events in the community including the local fairs (2) and major festivals. Effectiveness for this effort can be tabulated by the collection numbers from year to year.

Regulatory Background

Generators and transporters of used oil and used oil filters must comply with the requirements of:

- Chapter 6.5, Division 20 of the California Health and Safety Code, including Article 13 (commencing with section 25250), and
- Title 22, California Code of Regulations (CCR), Division 4.5, including Chapter 29 (used oil) (commencing with section 66279.1) and section 66266.130 (used oil filters).

Generators of used oil, oil filters or other hazardous waste, should consult with the County of Monterey's Environmental Health Division, Hazardous Materials Management Service. This Service acts as the local Certified Unified Program Agency (CUPA) throughout Monterey County, and can provide detailed information about requirements pertaining to used oil and used oil filters.

Legal Definition of Used Oil

"Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities" (Ref: Health and Safety Code Section 25250.1). Used oil includes, but is not limited to, the following:

- Used motor oils:
 - Vehicle crankcase oils
 - Engine lubricating oils
 - Transmission fluids
 - Gearbox and differential oils
- Used industrial oils:
 - Hydraulic oils
 - Compressor oils
 - Turbine oils
 - Bearing oils

- Gear oils
 - Transformer (electrical) oils
 - Refrigeration oils
 - Metalworking oils
 - Railroad oils
- Used oil does NOT include:
- Antifreeze
 - Brake fluid
 - Other automotive wastes
 - Fuels (gasoline, diesel, kerosene, etc.)
 - Grease
 - Solvents
 - Substances that are not oils
 - Oils with a flashpoint below 100 °F
 - Oils containing more than 1,000 parts per million (ppm) total halogens (in most cases)
 - Oils mixed with hazardous waste
 - Wastewater containing small amounts of used oil
 - Oils containing 5 ppm polychlorinated biphenyls (PCBs) or greater
 - Oily wastes that are not used oil
 - Oily wastewaters that are not used oil
 - Tank bottoms
 - Used oil processing bottoms
 - Used oil re-refining distillation bottoms
 - Cooking oils (edible)
 - Edible oils that are used for industrial purposes and that do not exhibit a hazardous characteristic

Used Oil Management

Used oil must be managed as a hazardous waste in California unless it is shown to meet one of the specifications for recycled oil in Health and Safety Code Section 25250.1(b) or qualifies for a recycling exclusion under Health and Safety Code Section 25143.2. In most instances, this means that the generator will contract with a registered hazardous waste transporter to have the used oil picked up within the appropriate accumulation period. The accumulation period is 90 days for large quantity generators or 180 days for generators of less than 2200 lbs. of hazardous waste per month (270 days if the generator sends the oil to a used oil facility that is more than 200 miles away) (Ref. Health and Safety Code Section 66262.34.) The transporter must take the oil to an authorized used oil storage or treatment facility. Among the facilities are used oil recycling operations where the used oil is processed into recycled oil or re-refined into high-class lubricant. Mixing of hazardous waste, including household hazardous waste, with used oil is prohibited.

Used Oil Generator Requirements

Persons or businesses generating used oil are required to meet all used oil generator requirements. Used oil collection centers must meet the same requirements (Ref. Health and Safety Code Section 66279.20 66269.21). Householders who change their own oil (do-it-yourselfers) are exempted from regulation as used oil generators. They must, however, manage their used oil appropriately (e.g., by taking it to a used oil collection center, etc., and never disposing of it to land, water, storm drains, etc.). Householders are allowed to transport

their own used oil to a used oil collection center or to a used oil recycling facility if specified conditions are met. These conditions are described below under the section “Transportation of Used Oil” and in Health and Safety Code Section 25250.11. Some communities have a curbside used oil pickup program; check with your local solid waste or environmental health agency to see if it offered in your area. An EPA Identification Number issued by the California State Department of Toxic Substances Control (DTSC) is required for each site where used oil is stored. A generator who stores used oil at two places in the same site needs only one EPA Identification Number. There is one exception to this requirement. Generators of 100 kilograms or less of hazardous waste per month (including used oil) who ship used oil under a modified manifest (Ref. Health and Safety Code Section 25250.8) are not required to obtain an EPA Identification Number.

Used oil must be stored in tanks or containers in good condition. Tanks and containers must be made of non-earthen, non-absorbing, rust-resistant material such as steel or oil-resistant plastic, and have adequate structural support to contain the used oil. Good condition means no severe rusting, no apparent structural defects or deterioration, and no leaking. All containers must have tight-fitting lids that are kept closed except when used oil is being added or removed. Regular inspections and routine maintenance of all storage tanks and containers are required. Faulty tanks and containers must be repaired or replaced.

Secondary containment is required for storage tanks. This is a backup containment system designed to prevent the release and migration of wastes or accumulated liquids out of a storage tank or a storage tank system. Examples of secondary containment systems include an impervious bermed area or liner, a vault, or a double-walled tank.

Above-ground storage tanks and containers accumulating used oil, and fill pipes used to transfer used oil into underground storage tanks must be labeled with the words “USED OIL-HAZARDOUS WASTE,” and the initial date of accumulation. In addition, containers must be labeled with the name and address of the generator. For shipping, containers must also be labeled as follows: “HAZARDOUS WASTE - State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency or the California Department of Health Services.” Labeling must also include the following information:

- Generator’s name and address
- Proper Department of Transportation (DOT) shipping name
- Generator’s EPA Identification Number
- Uniform Hazardous Waste Manifest number and the shipping identification number

Transporting Used Oil

In general, California law requires that a registered hazardous waste transporter transport used oil. However, there are a few instances in which the use of a registered hazardous waste transporter is not required. These are as follows: Householders and conditionally exempt small quantity generators are allowed to transport up to 20 gallons of used oil per trip to an authorized used oil collection center if the oil is carried in containers that hold 5 gallons or less and specified conditions are met. Authorized used oil collection centers include certified used oil collection centers (Ref. Public Resources Code Section 48622), recycle-only household hazardous waste collection facilities, or collection facilities operating pursuant to Health and Safety Code Section 25250.11. If specified conditions are met, mobile maintenance operations (see below) may transport up to 55 gallons of used oil in any one vehicle at any one time from an off-site location to a consolidation point. When used oil is transported by a registered hazardous waste transporter, either a full hazardous waste manifest or a modified hazardous waste manifest must be used.

When a modified hazardous waste manifest is used, the driver is required to provide the generator (at the time of used oil pickup) with a legible copy of a receipt for each quantity of used oil received. The generator must maintain these receipts for 3 years. Each receipt must contain the following information:

- Generator's name, address, EPA Identification Number (if applicable) and telephone number.
- Generator's signature or signature of generator's representative.
- Date of shipment.
- State manifest number (pre-printed on the manifest).
- Volume and shipping description of each type of used oil received.
- Name and address of the authorized facility to which the used oil is being transported.
- The transporter's name, address and identification number.
- The driver's signature.

Mobile Maintenance Operations (Ref. Health and Safety Code Section HSC 25250.12)

Maintenance businesses that generate used oil in the performance of routine maintenance operations at off-site locations are subject to special requirements. Such businesses include off-site heavy equipment operations (e.g., construction vehicle fleets) and mobile oil-changing businesses providing oil changes for personal and business vehicles at the customer's location. The following requirements apply:

- The owner/operator of the mobile maintenance business must have a point of consolidation for the used oil. The point of consolidation can be either at the maintenance business location or at a separate location owned by another person, such as a service station.
- The maintenance business must have an EPA ID number. When a separate location is used for consolidation, both the maintenance business and the separate location must have EPA ID numbers.
- The point of consolidation must be at a non-residential location.
- The transport vehicle must be owned by the business or by an employee of the business.
- The business is not required to register as a hazardous waste transporter as long as they transport no more than 55 gallons of used oil from off-site location(s) to the point of consolidation at any one time.
- The used oil is deemed to be generated at the point of consolidation upon consolidation.
- The used oil must be handled and stored at the point of consolidation in accordance with all applicable hazardous waste laws.
- The consolidated used oil must be transported by a registered hazardous waste transporter from the point of consolidation to a permitted used oil recycling facility.

Miscellaneous

It is unlawful to dispose of used oil on land, to sewers and other water systems, or to burn used oil as a fuel or by incineration, including in space heaters and similar devices. The use of used oil as a dust suppressant (road oiling) or for insect or weed control is prohibited (Ref. Health and Safety Code Section 25250.5).

Generators of used oil who also operate used oil collection centers, such as service stations, are advised to not mix the used oil generated in their business with the used oil from the collection center.

Managing Used Oil Filters

Used oil filters may exhibit hazardous characteristics for lead, other heavy metals and oil-based compounds. Used oil filters must either be managed as hazardous waste, or in accordance with the

requirements found in the DTSC regulations. These requirements are directed primarily at non-household generators of used oil filters, such as businesses and used oil collection centers. Used oil filters not managed as described herein must be managed as fully regulated hazardous waste. Disposal of used oil filters in trash cans and at sanitary landfills is prohibited. Fuel filters, including fuel dispenser and diesel fuel filters, are not used oil filters and may not be managed in the same manner as used oil filters. The following list is a summary of the management requirements for used oil filters.

- Used oil filters must be:
 - Drained of all free-flowing oil.
 - Properly contained, labeled and stored.
 - Stored without exceeding allowed time limits.
 - Transported to an allowed destination for purposes of metal reclamation.
 - Transported under a bill of lading with a copy kept by the generator for three years.
- All used oil removed from the filters must be managed in accordance with all applicable requirements of Health and Safety Code Article 13, Chapter 6.5, Division 20 and 22 CCR Section 66279.

Draining - Used oil filters must be drained of all free flowing used oil. “Free-flowing used oil” means a continuous stream of used oil from the filter when it is inverted. Used oil flowing drop-by-drop is not considered to be free-flowing. If the filter is equipped with a flapper valve or other device that impedes the drainage of used oil from the filter, that device must be manipulated to allow the used oil to leave freely. Properly drained oil filters may be punctured, crushed, opened, further drained or otherwise handled if the purpose of the treatment is to prepare the filters for recycling. The treatment does not require a DTSC permit. The generator must properly manage all used oil and other residues generated from the treatment of the filters.

Containers - Businesses or public agencies that accept used oil filters from householders must place the filters in containers upon acceptance to capture all used oil that separates from the filters. Upon reaching a location where proper drainage is practical, the filters must be contained as described below, and any used oil drained from the filters managed in accordance with all applicable requirements.

- The drained filters must be contained in rainproof, non-leaking containers with tightly-sealed lids.
- The container must be labeled “Drained Used Oil Filters” and the initial date of accumulation or receipt marked on each container.
- The initial date of accumulation is the date when the first filter is placed in the container, or the date when a full or partially full container of filters is received at a second location.

Storage - Up to one ton of used oil filters may be stored for a period of up to one year, unless the storage facility has a hazardous waste permit authorizing longer storage of used oil filters. Storage of one ton or more of used oil filters is limited to 180 days, unless the storage facility has a hazardous waste permit authorizing longer storage of used oil filters.

Allowed Destinations - The only allowed destinations for used oil filters are:

- To a smelter or scrap metal processor where used oil filters are recycled.
- To a municipal solid waste incinerator for energy recovery if the residual casings are subsequently transferred to a smelter or scrap metal processor for recycling.
- To a storage or consolidation facility that subsequently transfers the filters to a smelter, scrap metal processor or municipal solid waste incinerator as described above.
- To an authorized hazardous waste facility.

Transportation - Only properly-drained filters may be transported. The containers must be tightly-sealed during transportation to prevent any spillage of used oil. The containers must be well secured

in the transport vehicle to prevent movement or tipping during transportation. A bill of lading must accompany each shipment of used oil filters, and must contain the following information:

- Generator's name, address, and telephone number of the generator
- Transporter's name, address, and telephone number of the transporter
- Name, address and telephone number of the receiving smelter, scrap metal processor, municipal solid waste incinerator, or storage or consolidation facility
- Quantity and size of the containers in the shipment
- Date of transportation

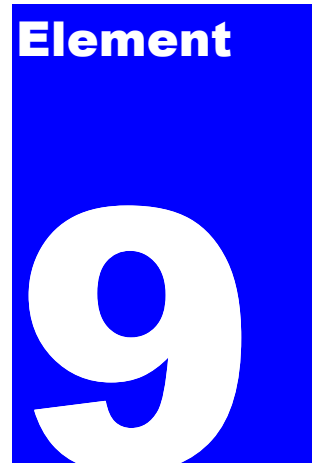
A copy of each bill of lading must be maintained by the transporter, generator and receiving facility for 3 years.

Questions about the information provided above may be directed to the DTSC Public and Business Liaisons (Duty Officers) at 800-728-6942. Further information may be obtained via the DTSC's website — <http://www.dtsc.ca.gov> — click on Frequently Asked Questions, and follow the Duty Officer link to the page listing Duty Officers' email addresses http://www.dtsc.ca.gov/oea/duty_officers/about.html.)

Authorized Used Oil Collection Center

For specific locations of authorized used oil collection centers contact Salinas Valley Solid Waste Authority at (831) 755-1300 or <http://www.SVSWA.org>.

Monitoring and Water Quality Testing



"I hate cameras. They are so much more sure than I am about everything."

---John Steinbeck

9.1 Introduction

Element 2: Water Resources contains a brief description of the City of Salinas' past water quality testing.

In June 2005, Salinas contracted preparation of its 2005-2009 water quality testing program plan. The City selected the firm, in part, because of their experience with local agricultural monitoring efforts, specifically the Agricultural Waiver Program required by the Regional Water Quality Control Board. The first step in developing the City's new water quality testing program was preparation of a Quality Assurance Program Plan (QAPP). Water quality testing has followed.

In accord with the City's Municipal Permit (Monitoring and Reporting Program Order No. R-3-2004-0135, Attachment 5), Salinas began its water quality testing in 2006 with dry season measurements. Wet season testing will follow consistent with the City's Municipal Permit and QAPP.

9.2 Quality Assurance Project Plan

The Quality Assurance Project Plan (QAPP) provides the City with a means to protect water resources through direct sampling of water quality, comparing results with benchmarks, and regional factors and recording trends. It is a principle tool in understanding the health of and managing the urban watershed within the City. The QAPP also includes provision to consider water quality outside of City limits. It contains a collaborative approach with regional stakeholders, (agricultural and others), in the Reclamation Ditch Watershed. This collaborative approach fosters the sharing of data with other stakeholders, greater efficiency and effectiveness in terms of data gathering and analysis, and continues the City's effort towards regional watershed management.

The program's goals are threefold: 1) to characterize water quality conditions to determine compliance, 2) to understand long-term water quality trends in urban watershed drainage areas, and 3) to meet requirements of the Regional Water Quality

Control Board's Monitoring and Reporting Program (Order No. R3-2004-0135). Goal attainment will be achieved by implementing six objectives. Primary objectives are summarized in the QAPP. In brief they include:

- A. Characterize urban runoff discharges;
- B. Assess the physical, chemical and biological impacts of urban runoff on receiving waters;
- C. Identify sources of pollutants;
- D. Assess the overall health and evaluate long-term trends in receiving water quality;
- E. Provide data necessary to assess compliance with the Order; and
- F. Measure and provide information to improve effectiveness of the City's Stormwater Management Plan, Urban Watershed Management Program and various BMPs;

Constituents to be monitored during this permit term and monitoring locations are summarized in Tables 9.1 and 9.2 respectively. The entire QAPP may be reviewed by going to : (<http://www.ci.salinass.ca.us/PubWrks/MtcSvc/StormWater-NPDES/StormWaterRegulations.html>). This is a large document of over 300 pages.

Table 9.1 Constituents to be Monitored: 2005-2009

Constituent	Wet Season Monitoring Frequency	Dry Season Monitoring Frequency
Field Observations		
Odor	Not required	Once per year
Oil sheen	Not required	Once per year
Color	Not required	Once per year
Conventional Water Quality		
Flow	Twice per year	Once per year
pH	Twice per year	Once per year
Conductivity	Twice per year	Once per year
Dissolved Oxygen	Twice per year	Once per year
Temperature	Twice per year	Once per year
Total Ammonia	Twice per year	Once per year
Orthophosphate as P	Twice per year	Once per year
Total chlorine	Twice per year	Once per year
Detergent	Twice per year	Once per year
Turbidity	Twice per year	Once per year
Nitrate as N	Twice per year	Not required
TOC	Twice per year	Not required
Total Dissolved Solids	Twice per year	Not required
Total copper and total zinc	Twice per year	Not required
Pathogens		
<i>E. coli</i>	Twice per year	Not required
Total and fecal coliform	Twice per year	Not required
Toxicity Test		
Chronic Water Column Toxicity	Twice per year	Twice per year
Sediment Toxicity	Annually during Spring (March 1 – April 30)	
Benthic Invertebrate Assessment	Annually during Spring (March 1 – April 30)	

Source: Pacific EcoRisk, *City of Salinas Storm Water Monitoring Program; Quality Assurance Project Plan August 2006*

Printed copies are also available for viewing between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday at the City's Maintenance Services Department, 426 Work Street and at the City Clerk's Office, City Hall, 200 Lincoln Avenue.

Table 9.2 Summary of Sampling Sites, Frequency and General Class of Parameters

Site Type and Location	Conventional Water Quality & Flow	Pathogens	Water Column Toxicity	Sediment Toxicity	Biological Assessment
Urban Discharge Sites¹					
Storm Drain Outfall #7	2 to 3	2	0	0	0
Storm Drain Outfall #19	2 to 3	2	0	0	0
Storm Drain Outfall #32	2 to 3	2	0	0	0
Storm Drain Outfall #52	2 to 3	2	0	0	0
City Background Sites					
Salinas River near Davis Road u/s City Outfall	3	2	4	1	0
Salinas Reclamation Canal u/s City Outfall	3	2	4	1	0
Agriculture Background Sites					
Gabilan Creek at Boronda Road	3	2	4	1	0
Natividad Creek u/s Salinas Reclamation Canal	3	2	4	1	0
Salinas Reclamation Canal at La Guardia ²	-	-	-	-	-
Receiving Water Sites					
Salinas River near Davis Road d/s City Outfall	3	2	4	1	1
Salinas Reclamation Canal d/s City Outfall	3	2	4	1	1
<i>Number of Sites</i>	10	10	6	6	2
<i>Additional Field QC Analyses³</i>	4	2	2	1	1
<i>Total Number of Samples</i>	30 to 34	22	26	7	3

1 - See sampling schedule on page 4 regarding sampling frequency for urban discharge sites.

2 - Salinas Reclamation Canal at La Guardia site receives mixture of urban runoff and ag runoff. The Cooperative Monitoring Program is currently discussing with the RWQCB the movement of this site further upstream. The Salinas Reclamation Canal u/s City Outfall site is ~100 meters downstream from the site at La Guardia and currently serves as a background site for this watershed.

3 - 1 in 20 samples requires a field split, and field blanks for conventional parameters are required during periodic field audits.

Source: Pacific EcoRisk, *City of Salinas Storm Water Monitoring Program; Quality Assurance Project Plan August 2006*

Quality Assurance Project Plan Direct Link:

http://www.ci.salinas.ca.us/MtcSvc/StormWater-NPDES/SalinasSMP_QAPP.pdf



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Program Funding and Legal Authority

Element

10

"If you are in trouble, or hurt or need—go to the poor people. They're the only ones that'll help – the only ones."

--John Steinbeck

10.1 Introduction

The City of Salinas is required to maintain a National Pollution Discharge Elimination System (NPDES) permit to allow discharge of stormwater from municipal separate storm sewer systems (MS4's) within the City's jurisdiction. The authority to impose Permit Orders to Salinas is based on the federal Clean Water Act, the Porter-Cologne Water Quality Control Act, and accompanying regulations. The purpose of the Storm Water Program is to prevent the discharge of pollutants to surface water bodies by preventing stormwater runoff from acting as a vehicle for pollution.

The City of Salinas Storm Water Management Plan (SWMP) is a comprehensive program comprised of various program elements and activities designed to reduce stormwater pollution to the maximum extent practicable (MEP) and eliminate prohibited non-stormwater discharges in accordance with federal and state laws and regulations. These laws and regulations are implemented through the City's NPDES municipal stormwater discharge permit.

The City recognizes the importance of stormwater management and has allocated resources to administer and implement the SWMP. While no single department in the City has exclusive responsibility for stormwater pollution prevention program activities, management and administration of the SWMP is provided by the Maintenance Services Department, and the Development and Engineering Services Department.

In addition to the issuance of a new NPDES Permit, several other factors will affect how the City manages its stormwater program over the next permit term. These factors include changes to the physical size and condition of the City and its financial situation, as well as City land use and other policies.

10.2. Regulatory Background.

In 1987, Congress amended the federal Clean Water Act (CWA) to require public agencies which serve urbanized areas with a population greater than 100,000 and other designated areas to obtain permits to discharge urban stormwater runoff from municipally owned drainage facilities including streets, highways, storm drains, and flood control channels.¹ The CWA's 1987 amendments require municipalities to effectively prohibit non-stormwater discharges to municipal separate storm sewer systems and to implement controls to reduce pollutants in stormwater to the maximum extent practicable (MEP). The SWMP focuses on complying with these two essential requirements.

In November 1990, the United States Environmental Protection Agency (EPA) promulgated enforceable regulations establishing municipal stormwater permit requirements under its NPDES Program. In California, EPA has delegated its NPDES permitting authority to the State Water Resources Control Board (SWRCB). The SWRCB issues and enforces NPDES Permits through its nine California Regional Water Quality Control Boards (RWQCB). The California Water Code (Porter-Cologne Act) provides these agencies with the authority to coordinate and control water quality in waters of the State. This SWMP describes what will be accomplished and is consistent with the provisions of State law.

10.3. City of Salinas' Regulatory Authority.

The City of Salinas is a charter city with corporate powers derived directly from the California Constitution. California Constitution, Article XI, §3(a). Through its charter, the City of Salinas has supremacy over municipal affairs subject only to conflicting provisions in the state or federal constitutions and preemptive state law on matters of statewide concern. Unless preempted by state legislation on matters of statewide concern, the City's laws will prevail over inconsistent state laws.²

Consistent with this authority, the City has adopted a zoning code to regulate land use and development, and a municipal code, which includes a Stormwater Ordinance. And, pursuant to that authority the City has adopted Grading Standards to control excavations, cuts, fills, clearing, grading, erosion and sediment. The City's Storm Water Ordinance and Grading Standards have been recently updated to comply with the additional requirements imposed upon the City by the NPDES Program. Current drafts of these two ordinances can be found in Appendices C-2 and C-3. These two documents have been completed and have been adopted by action of the Salinas City Council in June 2007.

10.4. Program Funding.

Funding of the enlarged NPDES program in the City of Salinas is problematic because of the scarcity of available funds due the City's recent fiscal crisis, statutory restrictions of Proposition 218, and current realities in passage of new tax measures in Monterey County.

¹ Federal Water Pollution Control Act, as amended by the Clean Water Act. Section 402(p).

² California Constitution Art. XI, §5(a).

Salinas is primarily an agricultural based economy, which is characterized by relatively low wages. The majority of Salinas residents are classified as “low income” by federal definition, with 17% in the poverty category. The constituency income level shapes the City’s fiscal environment resulting in a relatively low revenue base. The per capita revenue for the Salinas general fund is only 29% of that of the City of Monterey.

With this already low revenue base, the City of Salinas has in recent years faced a significant financial challenge, which has been exacerbated by a steep drop in state support, increased retirement expenses, and general revenue loss. Since April 2003, the City’s General Fund budget has been reduced \$15.3 million or 24%, including the elimination of 123 City staff positions. Only recently has the City began its recovery from the situation to an extent where it has been possible to begin restoring staff positions.

To balance its budget, the City drastically cut back on all services including basic public needs including road and facility maintenance, police, and fire protection. The City’s libraries and many of its recreation facilities were spared from closure only through private fund raising and the recent passage of a sales tax measure. The tax measure passed with a requirement for a citizen oversight committee of additional taxes to ensure the funds are spent on only those public services – libraries, public safety, and recreational services – which the measure was intended to fund.

To meet the costs associated with this federally mandated program, in 1999, the City of Salinas implemented a citywide stormwater utility and imposed a “storm drainage fee” for those using the City’s stormwater system. However, the City’s method of assessing stormwater related activities was invalidated as violating Proposition 218. The court indicated the fee was a property-related fee under Proposition 218, and therefore the fee was required to go through Proposition 218’s notice and hearing procedures and its voter approval procedures. The Court of Appeal concluded that “management of storm water runoff from ‘impervious’ areas is a property-related service and accordingly the storm-drainage fee is subject to Proposition 218.” It also found that exemptions found in Proposition 218 for water, trash, and sewer service do not apply to storm sewers (or any aspects of the NPDES program). Howard Jarvis Taxpayers’ Association v. City of Salinas, (2002) 98 Cal. App. 4th 1351.

Since this ruling, other cities in the State have had their stormwater programs challenged and have changed their NPDES program funding as a result. The California League of Cities and the City of Salinas have regularly supported State legislation that adds stormwater services to the list of Proposition 218 exemptions. No proposed state legislation has ever passed.

Given the recent history of Salinas area election measures, voter approval for NPDES funding would be highly unlikely. Measures for publicly highlighted and much needed basic services such as ambulance, hospital, and road improvements have failed. Even the initial library and public safety voter measure failed to garner a 50% majority. Only after substantial outcry, including national press for library closures in “John Steinbeck’s hometown” and over \$700,000 in private contributions to keep the libraries open did a general tax funding measure pass.

The Salinas City Council approved funding for a two-year budget to include operations and capital improvement projects. These budgets are summarized on the attached Table

Storm Sewer (NPDES) Capital Projects and Operating Budgets. The total amount authorized for these two fiscal years of the Permit is \$6,946,400. The funding sources are General Funds, Gas Tax, Development Impact Fees, the Sanitary Sewer Fund (“*Sewer Fund*”) and Solid Waste Franchise Fees (“*3% Franchise Fee*”) which are funds collected to implement Street Sweeping. The total funding represents a substantial investment of public funds to address stormwater activities, inclusive of capital projects, facility and construction inspection, program development, and maintenance activities.

Even with this level of investment in stormwater activities, additional resources will be necessary to meet the Permit requirements. To achieve the unfunded aspects of the program, the City must pursue other avenues to cut the program costs through collaborations with local stakeholders. Through this collaborative approach, the City hopes to maximize the funds available for activities not achievable otherwise. The combined benefits of a regional collaboration with stakeholders have the effect of reducing all participants’ costs and affecting a broader coverage with the pollution prevention efforts. Salinas is committed to broadening the collaborative approach as the opportunities arise for a more effective program implementation.

As possible revenue from a stormwater fee is blocked by Proposition 218 and the electoral climate, currently the only sources available for funding of the City’s NPDES program are via the depletion of funds from basic services of the City. Until other means of funding become available to the City of Salinas, the mandated enlarged NPDES program will be a contributing problem to the City’s drive to supply basic public services.

The City of Salinas will monitor the progress of two recent cases involving test claims filed by several California local agencies with the California Commission on State Mandates seeking reimbursement for carrying out provisions in their MS4 permits. County of Los Angeles, et. al. v. Commission on State Mandates, 2007 Cal. App. Lexis 711. As these issues develop both at the Commission and in the courts, the City of Salinas will evaluate whether it is appropriate to participate or to file a claim of its own.

Table 10-1 Stormwater (NPDES) Capital Projects and Operating Budgets

Number	Description	Funding Source	2005-06 (Actual)	2006-07	2007-08	2008-09 (Projected)
Capital Projects						
9139	Storm Sewer Drainage Repairs	Gas Tax	550,000 250,000	250,000	250,000	250,000
9176	Master Storm Drain Plan	Gas Tax	50,000			
		Dev Fees	50,500			
9365	Street Sweepers Acquisition	Gas Tax		27,700	86,800	86,800
9436	Storm Water Monitoring NPDES	General Fund	359,500	200,000	0	300,000
		Storm Fees	190,500	100,000		
9512	NPDES Public Education	Storm Fees		100,000	150,000	165,000
9735	Priority 1 Storm Sewer Lines	Dev Fees	740,000	300,000	300,000	300,000
Total Storm Sewer (NPDES) Capital Projects			1,940,500 1,640,500	1,077,700	836,800	1,101,800
9348	WDR-Grease Trap Inspections	Sewer Fund		250,000	250,000	200,000
5180	Storm Sewer Operating Budget	Gas Tax		535,000	520,000	
		Storm Fees		128	9,200	700,700
Total Storm Sewer Operating Budget				673,800	699,000	700,700
5185	Street Sweeping Operating Budget	3% Franchise Fee		435,000	440,000	
		Gas Tax		660	6,800	729,800
Total Street Sweeping Operating Budget				597,800	620,800	729,800
Total Projects, Programs and Available Funds			1,940,500	2,599,300	2,406,600	2,532,300
			0	55,489	2,642,800	

NPDES related budgeted funds total
\$6,946,400 over the next two years.

Table 10-1 Stormwater (NPDES) Capital Projects and Operating Budgets

Number	Description	Funding Source	2005-06	2006-07	Projected	
					2007-08	2008-2009
Capital Projects						
9139	Storm Sewer Drainage Repairs	Gas Tax	250,000	250,000	250,000	250,000
9176	Master Storm Drain Plan	Gas Tax	50,000			
		Dev Fees	50,500			
9365	Street Sweepers Acquisition	Gas Tax		127,700	86,800	86,800
9436	Storm Water Monitoring NPDES	General Fund	359,500	200,000	300,000	300,000
		Storm Fees	190,500	100,000		
9512	NPDES Public Education	Storm Fees		100,000	150,000	165,000
9735	Priority 1 Storm Sewer Lines	Dev Fees	740,000	300,000	300,000	300,000
Total Storm Sewer (NPDES) Capital Projects			1,640,500	1,077,700	1,086,800	1,101,800
9348	WDR-Grease Trap Inspections	Sewer Fund		50,000	200,000	200,000
5180	Storm Sewer Operating Budget		510,100	678,128	719,200	700,700
Total Grease Trap Inspection and Storm Sewer and Operating Budget			510,100	728,128	919,200	900,700
5185	Street Sweeping Operating Budget	529,661		636,800	729,800	733,500
Total Street Sweeping Operating Budget			529,661	636,800	729,800	733,500
Total Projects, Programs and Available Funds			2,680,261	2,442,628	2,842,800	2,732,300
NPDES related budgeted funds total \$6,946,400 over the next two years.						

Table 10.2 NPDES Storm Drain Budget Fiscal Years 2004-2008

Table 10.3 NPDES Street Sweeping Budget Fiscal Years 2004-2008

ENTERPRISE OPERATIONS NPDES Storm Drain Sewer

5180

Purpose

Maintain the storm drainage system in a safe and sanitary condition by providing regular inspections and periodic maintenance. Comply with local and regional goals through the Federally mandated NPDES requirements and "Best Management Practices" (BMPs). NPDES refers to the City's National Pollution Discharge Elimination System Permit that outlines BMPs to reduce or eliminate pollution from storm water runoff and illicit discharges from identified sources.

Selected Goals

1. With the February 2005 renewal of the City's new 5 year NPDES permit the goals and standards outlined in the new permit will be implemented.
2. Inspect, clean and repair the existing storm drain system as required to assure that the City accomplishes water quality objectives as outlined in the City's NPDES Permit and to reduce the risk of localized flooding.
3. Maintain City-owned open drainage channels to provide for free flow of storm runoff throughout the City.
4. Develop and implement a monitoring and maintenance program consistent with NPDES requirements established by the Central Coast Regional Water Quality Control Board.
5. Continue the Storm Drain stenciling program consistent with NPDES BMPs.

Workload and Performance Indicators

1. An estimated 6,000 linear feet of storm system pipeline will be serviced.
2. An estimated 2,500 catch basins will be visually inspected and receive needed service. This activity is conducted prior to the wet weather season annually as an NPDES BMP.
3. Approximately 100 storm drains will be stenciled with the logo (NO DUMPING - FLOWS TO BAY). This will be generally accomplished with volunteers coordinated through a third party BWET Grant.
4. Implement the requirements of the NPDES Storm Water Permit.

Major Budget Changes

Program is fully funded with Gas Tax in the absence of a NPDES Storm Sewer Fee. Capital Outlay (\$17,500) provides for the purchase of mowers.

ENTERPRISE OPERATIONS
NPDES Storm Drain Sewer
5180

Operating Expenditures	05-06 Actual	06-07 Budget	07-08 Proposed	08-09 Proposed
1. Employee Services	382,592	455,100	466,100	466,900
2. Office Supplies & Materials	64	500	500	500
3. Bldg/Veh/Equip Maint/Supplies	1,255	7,328	3,000	3,000
4. Vehicle Fuels & Lubricants		3,000	4,000	4,000
5. Small Tools & Equipment	108	500	500	500
6. Clothing & Personal Equip	178	1,000	1,000	1,000
7. Street Materials	1,302	2,500	1,500	1,500
8. Special Dept Supplies	3,620	4,000	4,000	4,000
9. Chemicals	464	1,100	1,000	1,000
10. Communications	158	200	200	200
11. Rents & Leases	2,457	4,000	4,000	4,000
12. Contract Maintenance Services	12,395	26,100	26,100	26,100
13. Professional Services	40,447	74,500	74,500	74,500
14. Administration/Contingencies	55,769	85,300	101,500	99,700
15. Training/Conferences/Meetings	2,391	5,000	5,000	5,000
16. Membership & Dues		100	100	100
17. Insurance and Bonds	6,900	7,900	8,700	8,700
18. Capital Outlay			17,500	
TOTAL	510,100	678,128	719,200	700,700
 Authorized Positions	 5.5	 5.5	 5.5	 5.5
 Funding Source				
Storm Sewer (NPDES) Fund				

ENTERPRISE OPERATIONS NPDES Street Sweeping

5185

Purpose

Maintain a clean City in accordance with best management practices in the City's NPDES Permit. NPDES refers to the City's National Pollution Discharge Elimination System Permit that outlines BMPs to reduce or eliminate pollution from storm water runoff or illicit discharges from identified sources. Program is funded with Gas Tax and 3% Street Sweeping surcharge on garbage bills.

Selected Goals

1. Maintain clean streets maximizing street sweeping throughout the City commensurate with available resources and funding.
2. Sweep all residential streets once every two weeks.
3. Sweep specific commercial areas weekly.
4. Reduce the amount of refuse in the City's storm sewer effluent consistent with NPDES best management practices.

Workload and Performance Indicators

1. Street Sweeping is conducted in all residential areas once every two weeks. Commercial areas are swept weekly. An estimated 18,850 curb-miles will be swept annually.

Major Budget Changes

The City Council approved the addition of one motor sweeper operator position during the FY 2006-07 mid-year budget adjustments.

ENTERPRISE OPERATIONS
NPDES Street Sweeping
5185

Operating Expenditures	05-06 Actual	06-07 Budget	07-08 Proposed	08-09 Proposed
1. Employee Services	360,387	430,600	475,900	475,900
2. Office Supplies & Materials		800		
3. Bldg/Veh/Equip Maint/Supplies	54,774	73,000	91,000	91,000
4. Vehicle Fuels & Lubricants	31,561	30,800	36,800	39,800
5. Special Dept Supplies	1,069	1,500	1,000	1,000
6. Communications		800	300	300
7. Utilities	1,899	5,500	5,500	5,500
8. Contract Maintenance Services	17,304	26,000	26,000	26,000
9. Administration/Contingencies	54,767	59,300	84,300	85,000
10. Insurance and Bonds	7,900	8,500	9,000	9,000
TOTAL	529,661	636,800	729,800	733,500
 Authorized Positions	 4.5	 5.5	 5.5	 5.5
 Funding Source				
Storm Sewer (NPDES) Fund				

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